

CONTRIBUTION OF KONKANIS
TO

Hortus Indicus Malabaricus

SEMINAR PAPERS

EDITOR:

PROF. BHUSHAN BHAVE

CO-EDITOR:

PAYYANUR RAMESH PAI



GOA KONKANI AKADEMI

PROGRAMME
DAY 1: 18 February, 2013 - Monday

9:30 am : Tea / Breakfast

10:00 - 11:30 am : INAUGURAL SESSION

Chief Guest

Dr. Wilfred Misqueita

Commissioner for NRI Affairs, Govt. of Goa

Keynote Address

Shri. V. V. Bhat

Secretary to Govt. of India, Member of Finance,
Atomic Energy Commission

Guests of Honour

Shri. Manohar L. Dicholkar

Director, Archives & Archaeology, Govt. of Goa

Shri. Basti Vaman Shenoy

President, Konkani Language & Cultural Foundation

Shri. R. Bhaskar Shenoi

President, Anugraha Charitable Trust

Chair

Shri. Pundalik Naik

President, Goa Konkani Akademi

11:30 - 11:45 am : Tea Break

11:45 - 1:00 pm : SESSION 1

**HISTORY OF KONKANI PEOPLE, CULTURE AND
LANGUAGE IN KERALA**

Chair - **Dr. N. S. Prabhu**

Resource Persons

1. **Adv. Uday Bhembre**

2. **Dr. E. Ismail**

1:00 - 2:00 pm : Lunch Break

2:00 - 3:30 pm : SESSION 2

**MAKING OF 'HORTUS INDICUS MALABARICUS':
KONKANI ROLE**

Chair - **Dr. G. Nagendra Prabhu**

Resource Persons

1. **Shri. Payyanur Ramesh Pai**

2. **Shri. N. Balakrishna Mallya**

3:30 - 3:45 pm : Tea Break

3:45 - 5:00 pm : SESSION 3

**ILLUSTRATIONS IN
HORTUS INDICUS MALABARICUS**

Chair - **Cartoonist Balachandran**

Resource Persons

1. **Shri. C. K. Viswanathan**

2. **Shri. Dinesh R. Shenoy**

PROGRAMME
DAY 2: 19 February, 2013 - Tuesday

9:30 am : Tea / Breakfast

10:00 - 11:30 am : SESSION 4

**CONTRIBUTION OF KONKANIS TO 'HORTUS':
W.R.T. BOTANY/ETHNOMEDICINE/AYURVEDA**

Chair - **Dr. K. Madhusudhanan**

Resource Persons

1. **Dr. V. Rajeev Shenoy**

2. **Dr. M. S. Kamath**

11:30 - 11:45 am : Tea Break

11:45 - 1:00 pm : SESSION 5

**LINGUISTIC ANALYSIS OF
KONKANI LANGUAGE IN HORTUS**

Chair - **Prof. Priyadarshani Tadkodkar**

Resource Persons

1. **Prof. Bhushan Bhawe**

2. **Dr. P. R. Hareendra Sarma**

1:00 - 2:00 pm : Lunch Break

2:00 - 3:30 pm : SESSION 6

PLENARY (INTERACTIVE) SESSION

Chair - **Shri. Nagesh Karmali**

Discussants

1. **Shri. Anand G. Kamath**

2. **Shri. N. Muralidhara Pai**

3. **P. N. Sivananda Shenoy**

3:30 - 3:45 pm : Tea Break

3:45 - 5:00 pm : VALEDICTORY SESSION

Chief Guest

Shri. Ramadas U. Kamath

Vice-Chairman, Infosys Ltd.

Guests of Honour

Shri. B. Vijayan, IAS

Chief Secretary, Govt. of Goa

Shri. Mathew Samuel, IAS

Secretary, Art & Culture and Archaeology

Co-ordinator: Prof. Bhushan Bhawe

PAPERS PRESENTED AT

THE NATIONAL SEMINAR ON 'CONTRIBUTION OF KONKANIS TO HORTUS INDICUS MALABARICUS'

ORGANISED BY



**GOA KONKANI AKADEMI,
PANAJI, GOA**

IN COLLABORATION WITH



**DIRECTORATE OF ARCHIVES & ARCHEOLOGY,
GOVT. OF GOA, PANAJI**

AND IN ASSOCIATION WITH



**ANUGRAHA CHARITABLE TRUST, ERNAKULAM, KERALA
& KONKANI LANGUAGE & CULTURAL FOUNDATION,
MANGALORE, KARNATAKA**

HELD ON 18 & 19 FEBRUARY 2013

AT

GOA STATE MUSEUM AUDITORIUM, PANAJI, GOA

**Contribution of Konkani to
Hortus Indicus Malabaricus**

(Seminar Papers)

Editor : Prof. Bhushan Bhawe

Publication No. : 171

© Goa Konkani Akademi

First Edition : 2014

Publisher :

Goa Konkani Akademi,
243, Patto Colony,
Panaji-Goa

Type setting :

Riya Graphics,
Old - Goa

Printer :

Lokmanya Process
Corlim, Goa

Cover-design :

Mayur Nadkarni

Price : ₹ 250/-

हॉर्तुश इंदिकुश मलबारिकुश
ग्रंथाक कोंकणी मनशाचें योगदान
(परिसंवादांतलीं प्रपत्रां)

संपादक : प्रा. भूषण भावे

प्रकाशन क्र. : 171

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पयली उजवाडावणी : 2014

उजवाडावपी :

गोवा कोंकणी अकादेमी
243, पाटो कॉलनी,
पणजी - गोंय

अक्षर जुळणी :

रिया ग्राफिक्स,
ओल्ड-गोवा

छापपी :

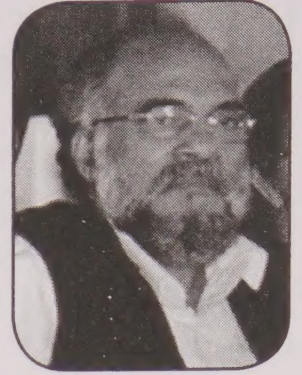
लोकमान्य प्रोसेस
खोर्ली, गोंय

मुखचित्र :

मयूर नाडकर्णी

मोल : ₹ 250/-

On Behalf of Goa Konkani Akademi



It is a matter of great pleasure that the research papers presented during the National Seminar on 'Contribution of Konkani to Hortus Indicus Malabaricus' held under the aegis of Goa Konkani Akademi on 18th and 19th February, 2013 in Panaji, are now being published by the Akademi in book form.

Vice-President of Akademi Prof. Bhushan Bhawe, who shouldered this strenuous task of compiling the research papers and discussion papers is well renowned literary critic, translator and writer. He has associated himself in the research work of Konkani linguistics and has shown his eminence in the literary circle. It is he who gave the concept of the National Seminar the final shape. He contributed to the success of the seminar and making the papers available to us in the book form.

Invariably and unfailingly I make a mention of my observation about the Konkani community. My advice is if one wants to know the proof of ingenuity and the talent of Konkani men and women writers, artists, etc one should go through the list of Padma Awardees declared on 25th day of January every year that is on the eve of Republic Day. One would find at least one or two names of eminent Konkani in this list. He or she may hail from as diverse field as art, literature, music, sport, administration and civil service, academics so on and so forth. Konkani community as such is inherently gifted and talented. In this background their language Konkani can never be regarded as spoken language or dialect of any other language, but has its own independent entity and distinct identity. One such case is the 17th Century ambitious research work 'Hortus Indicus Malabaricus' dedicated to medicine and gifted to the world by Ranga Bhat, Vinayak Pandit and Appu Bhat. This historic feat was a contribution of these three illustrious Konkani persons.

Though the research book is in the name of above three persons, it could be possible that a large number of Konkani diaspora settled in Malabar also must have contributed their mite in this mega book.

One can learn a lot from the testimonial accompanying this historic book 'Hortus Indicus Malabaricus'. The difficult task of compiling the book performed by the three Konkani savants in the field of Ayurveda have their origin in Goa is an undisputed fact. There can be arguments on period of their immigration

to Kerala. After the arrival of Portuguese in 1510, we can trace the first ever evidence of exodus of Goans in 1560. It could be possible that the medical practitioners of Goa were the regular visitors to the land of Kerala. Some of them might have made Kerala their home.

However one fact which remains unchallenged is that the language used by these Vaidyas – Medical Practitioners was Konkani only. It was in Konkani only which was then their community language that they might have communicated orally and written form was in Devanagari only. From the way the Konkani language has been used by these Vaidyas – medical practitioners, it can be deciphered that they were equally well versed in Sanskrit, Marathi, Arabian, Farsi, as well as they had familiarity with Portuguese language.

Konkani man/woman had been naturally dispensed with multi-language capability. Today we observe Konkani man/woman has his/her contribution in atleast 16 Indian languages and also foreign languages. It is needless to mention that a Konkani person who had been well-versed in Ayurveda was obviously integrated with the nature and its elements.

Another very important aspect about this work 'Hortus Indicus Malabaricus' is the revelation that the authorities of those days were aware and conscious about the importance of Konkani language. Konkani therefore found its rightful place in the rank of other dominant languages like Latin, Malayalam, Arabic, etc. Konkani then used to be referred to as 'Lingua Brahmanica.'

Though Dutch used to grab hold on the monopoly of Arabs on medicine engage the ambitious project 'Hortus', it resulted in valuable contribution in medical field by Konkani Vaidyas – medical practitioners and their language Konkani also acquired global introduction, recognition and respect.

Finally, Goa Konkani Akademi acknowledges with gratefulness the valuable contribution made by our research scholars, all the resource persons and invitees.

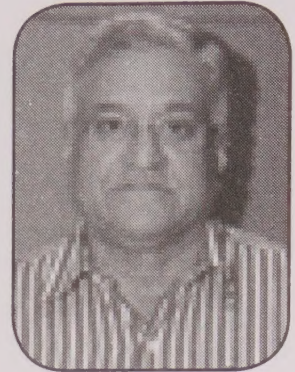
Goa Konkani Akademi thanks all of them and you.

Pundalik Naik

President,

Goa Konkani Akademi

Office of the Commissioner
For N. R. I. Affairs
(Cabinet Minister Rank)
GOVERNMENT OF GOA



MESSAGE

It was an honour to be associated with the inaugural ceremony of the two days National Seminar on Hortus Malabaricus organized by Goa Konkani Akademi and held on 18th & 19th February 2013 in Panaji, Goa.

It was also a pleasure to address the erudite gathering that had come together to remember the works and pay homage to the three eminent Konkani Researchers, namely Appu Bhat, Vinayak Pandit and Ranga Bhat who provided the first Ethno-Medical Original Information, a testimonial recorded in Konkani language in the first volume of the book released in 1678. Undoubtedly, the works of these Konkani researchers have enlightened the world.

I am glad, the Goa Konkani Akademi is releasing the proceedings of that seminar in a book form so as to spread the message of the works of these three sons of Konkani, namely Appu Bhat, Vinayak Pandit and Ranga Bhat.

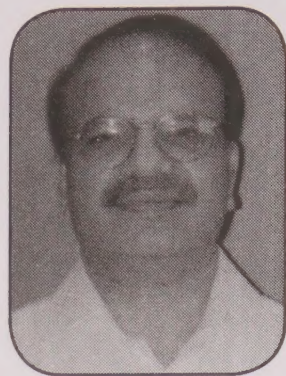
My best wishes to the Goa Konkani Akademi for all their various future endeavours in their various fields of activity.

Dr. Wilfred Menezes Mesquita,
Commissioner, NRI Affairs, Government of Goa

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B. VIJAYAN, IAS
CHIEF SECRETARY

GOVERNMENT OF GOA
Secretariat, Porvorim-Goa



MESSAGE

I am very glad to know that Goa Konkani Akademi is bringing out the research papers of two day National Seminar on 'Hortus Indicus Malabaricus' in book form. I had the opportunity to attend the seminar on 'Hortus'. During the course of this seminar and subsequently I made attempts to know about this great 17th century work called 'Hortus'

This book, running in 12 volumes, had dwelt upon diverse knowledge of botany, linguistics, pharmacopoeia, ayurveda, ethno-medicine in a very credible manner by the eminent Konkani speaking Vaidyas (medical practitioners) of Goan origin itself is a matter of great wonder.

I am sure this seminar would shed light on the rich tradition of Goa's eminence in Ayurveda and pharmacopoeia, and would help in the process to rekindle studies on this fragmented tradition.

I hope that this book will help induce further research on geo-historical aspect of Konkani as a language and its dialects.

Further I am certain this book will serve as a reference material for students and research scholars as also curious readers.

My best wishes to Goa Konkani Akademi.

(B. Vijayan, IAS)
Chief Secretary

P. Mathew Samuel, IAS
Secretary (Official Language)
Govt. of Goa



MESSAGE

It is matter of pride and joy for the Goa Konkani Akademi to bring out the compilation of the 'Hortus Malabaricus', a compendium on medicinal plants and treatments of the west coast of India by 3 eminent scholars and physicians of Konkani origin for the Dutch rulers of the Cochin in the 17th century.

This shows that the Konkani language was actively used in scientific research and writing well over 300 years ago which should be an inspiration for present generations of Goa.

I am happy to see that the Goa Konkani Akademi is claiming the larger legacy of the Konkani language inside and outside of Goa.

My best wishes and congratulations to all concerned for bringing out this compilation and I am hopeful it will be useful.

P. Mathew Samuel

Secretary (Official Language)

M. L. Dicholkar
GOVERNMENT OF GOA
Directorate of Archives and Archaeology
Rua de Ourem, Mala, Panaji,
Goa, 403 001, India.



MESSAGE

I am very much pleased to know that, the ambitious Goa Konkani Akademi is engaged in bringing out a Publication in a form of a book which recollects all the research Papers presented in the two days National Seminar on the topic 'Contribution of Konkani to Hortus Malabaricus'. With Directorate of Archives & Archaeology was co-organizer with Goa Konakni Akademi for this Seminar event.

This Seminar has brought together many enthusiastic Scholars who have always kept themselves engaged in the study of History of the Konkani people and their Culture as Konkani to 'Hortus' i. e. in the field of Botany, Ethno Medicine and very much related to medicines in Ayurveda.

Hortus Indicus Malabaricus is an outcome of voluminous work spearheaded by the Dutch Governor Hendrick Van Rheede who lived from 1636 to 1691 dealing with the biological wealth of Malabar. 'Hortus Indicus Malabaricus' was published during 15 years from 1678 to 1693 and contained 650 species of plants with 794 drawings. Three prominent Konkani physicians Ranga Bhat, Vinayak Pandit and Appu Bhat along with Fr. Mathews and a Malayali Physician Itty Achutan has helped Governor Hendrick Van. Rheede towards researchful contribution of this book. Historically the book is also credited for being the 1st block printing of Konkani Devanagri and also in the Malayalam script.

This Publication would definitely encourage upcoming researchers, Students, Medical practitioners, Ayurvedacharyas etc. My hearty compliments to the 'Goa Konkani Akademi' for their kind dedication towards this assignment to have this Seminar Papers in a book from.

(M. L. Dicholkar)

Director,
Archives and Archaeology
Govt. of Goa

Hortus Indicus Malabaricus – Konkan's earliest feat



Goa Konkani Akademi and Directorate of Archaeology, Goa Government jointly with the help of Anugraha Charitable Trust, Ernakulum, Kerala, Konkani Language and Cultural Trust, Mangalore, Karnataka organized a two day seminar on 18-19th February, 2013 on 'Hortus – Contribution of Konkani speaking people.' In this seminar resourceful papers and documents were presented by experts in various fields towards compilation of 'Hortus' by three Konkani Vaidyas – medical practitioners. In the course of deliberations the participants and discussants made valuable contribution in the form of views and opinions on the subjects. It was decided that this material should be made available in book form.

Accordingly, all the material was referred back to the respective expert participants to give final shape to their views and opinions. In this task Shri Payyanur Ramesh Pai, Kerala was of great help. Most of these papers were in English. So it was decided to publish the book in English. Those papers which were presented in Konkani were translated into English. Intent behind this was to give far and wide reach to this great feat of Konkani language. In future this book should also be available in Konkani.

Hortus – An astonishing feat

'Hortus' was an accomplishment of team spirit. Under the dedicated and powerful guidance of Dutch Commander Van Rheede a team of European Physicians and botanists and Indian scholars in medicine, technicians, artists, painters, engravers, the Dutch officers, Church authorities, the King of Cochi and Calicut and hundreds of local and foreigners formed a team and after relentless work of several years 'Hortus' was born. Next and important part of this project was collection of samples of each of these plants and herbs. These samples were carefully packed and labeled with its name and its medicinal value etc and shipped to Amsterdam to conduct further and final research to ascertain veracity of the claims. One can have insight into the capabilities of both skilled and unskilled manpower of Indians of those days.

Hortus was born to prove the universal truth that "The environ where we live

also has the inherent source of potential in the form of plants and herbs to provide relief to all the disorders and ailments."

The entire life derives its strength and sustenance from the soil, nature and its elements and the seasons. 'Hortus' evidences this historic and universal fact.

Significance of plants in Indian's life

Indian Civilisation over the ages has sustained and blossomed amidst the nature. Moreover the civilization sustains itself on the plant life. This plant life in the form of its roots, bark, branches, leaves, flowers, fruits, seeds etc. have almost occupied the life of Indians. Apart from the food we enjoy the fruits and the leaves, flowers are offered to the deities, flowers are used as cosmetics and decoration, for obtaining the oracle and other myriad purposes. For average Indian flower symbolizes love, affection, devotion and dedication. Plants provided ingredients for preparation of medicinal formulations, concoctions, pastes etc right from the dawn of human civilization. This tradition found its place in Atharva Veda, Amarkosha, Charak Samhita, Shushruta Samhita and later days in many Nighantus (materia media) and has remained unhindered till date.

Indians cleverly exhibited their empirical skill by studying the environ around them. They identified the plants and herbs and classified them on the basis of source of food, nutrition and therapeutic use. Best example is the 'Matoli' tradition in Goa, where hordes of vegetables, fruits, nuts etc. are hanged on the top of idol of 'Lord Ganesh' during Chaturthi festival. This decoration part of the festival also exhibits the significance of Botany in the life of human being. Our country is a showcase of bio-diversity. One should look at Van Rheede's botanical garden at Fort Cochi through this angle. Indian's knowledge of Botany is a great legacy. Hortus was its first ever acknowledgement.

Botanical Wealth of India

It is said that there are around 15000 varieties of plants and herbs in India. Out of that around 1768 varieties are used in Ayurvedic medicine, 112 by Siddha and 751 by Unani therapy. There are hordes of other varieties used by aboriginals in their ethno-medicinal practice. Thus around 8000 varieties of plants and herbs go for production of medicinal formulations.

Ayurveda is not just therapy but a holistic way of looking at human life. It demands certain behavioral standards. As such there is an in-depth approach in the Ayurvedic therapy while using the right plants and herbs, flowers, fruits, seeds etc, into timing, frequency, dosages, for each of the ailment and disorders in the human body and mind.

Ayurveda is culmination of empirical experience, experiment and time tested truth.

There is even thorough study as regards the time and seasons of making use of Ayurvedic ingredients like leaf, flower, fruits, bark etc. The different ingredients go for formulation in the form of paste for external use, concoction for internal consumption, time and season of cutting and plucking of each of these ingredients. This is required to ensure sure results. Wrong timing, dosages, frequency can give adverse results. Even this aspect is highlighted in the Ayurveda. Our ancestors might have not used the large paraphernalia of laboratory and instruments but the environ was itself a laboratory for them. They used trial and error, different permutations and combinations, omissions and commissions. This was possible due to our ancestors' proximity with the nature and identifying themselves that they were integral part of the nature. They firmly believed that they were not from out of nature but from within the nature. They realized that not conflict but co-existence was the mantra.

In this background 'Hortus' acquires a very important place as a scientific documentation of Indian's knowledge of botany and paharmacopeia. There is no precedence for a creation like 'Hortus' as regards this fact.

Ethno-Medicinal traditions in Goa

How can Goa stay away from this rich tradition? For thousands of years Goans have still retained this unhindered tradition of study of plant life and its use in therapies and nutrition. We will hardly find a village where one would not find a person or two who is unaware of medicinal values of the plants, herbs and roots and its usage. There are still many 'Vaidyas' in Goan villages. 'Zado', 'Kadho', 'Kashai' are part of common medical jargons in Goan villages is itself a proof of this.

Hortus and Goa

The national seminar on 'Hortus' was organized in Goa which is another example of exhibition of local know-how on botany. Around a century prior to the 'Hortus' in 1563, Garcia De Orto a botanist published his work in botany 'Os colloquies...' based on his study of local knowledge of Botany. Around 450 years back a large number of Konkani speaking Goans had migrated to Kerala. And three of the distinguished members of this community gave their valuable contribution to the success of 'Hortus'. Today history has completed its full circle, when the proceedings, the research paper and documents are being published from this very soil of Kerala. This is not coincidence but a God ordained event to be remembered forever by us.

Goan Diaspora in Kerala

We find the evidence of migration of Goans to Kerala as early as 1560. Religious conversions and desecration of Hindu places of worship started from 1540. In 1543 Bardez and Salcette were captured by Portuguese. The religious atrocities which had started in Tiswadi spread to other talukas, Left the native Goans with no alternative but to migrate to safer havens. Neighbouring Bijapur regime in Karnataka had also been weak to save their life and belongings. Goans were forced against their will to leave their homes in search of safety and self respect. This led to exodus of Goan community from Bardez and Salcette to migrate to Malabar, Calicut by sea route and took shelter from Zamorins. They further migrated and settled upto Cochi. In 1663 when fort of Cochi was captured by Dutch the members of same community might have developed affinity with them.

A large group of these emigrant Goans were traders. Some letters of Jacobes Conteiro Fisher a Dutch Priest are available in the form of book 'Letters from Malabar'. One of these letters numbered 22nd is about the Goan community makes interesting reading (Letters from Malabar by Jacobus Canter Visocher, Madras, 1862, Letter No. 22 p-p-131-32, 134-38).

In this a mention about Goan community is found in these words 'some of these Goans are learned persons in medicines...'. Medical practice was not just limited within Goan boundary but the members of Goan community also continued with same tradition and acquired recognition.

From the period of 150 years of first migration and settlement in 1560 to 1720 (period of above letters) was a period for the Goan community in Kerala to establish and participate and assimilate in the socio-cultural and economic field is proven beyond doubt. On the same subject Shenoi Goembab had said, 'From the above referred records (letters of Fisher) it is evident that Goans from the time of their leaving Goa within 150 years, established and recreated a new Goa only on the strength of their intelligence and enterprise in the Kingdom of Cochi. There they lived and flourished happily conserving their original language.'

(Ref Goenkaranchi Goean bhayali vasanook, Samagra Shenoi Goembab, Volume 2, Goa Konkani Akademi, Panaji. 2003, P. 146-160.).

Multilingualism is a peculiar gift enjoyed by Goans. It is because of this quality Konkani Vaidyas (Medical practitioners) could contribute in composing the great treatise 'Hortus', as in the course of this task they had to converse and convince and deal with Dutch, Portuguese, Latin speaking people as also the Malayalam speaking people. The emigrant Goan community never turned into an unwanted burden for the alien land. On the contrary this community proved

to be complimentary to the new people and inhabitants. On one hand they had to retain and ensure their own language and culture, at the same time acquire the language, culture and assimilate the traditions of the new home land. Goan community emigrated in the distant land never preferred blinkered life, but strictly followed practice of new home land, preferred co-existence and co-operation and assimilation. Their stay therefore became peaceful and were adopted by the locals with warmth and love.

Kerala's tradition in the field of medicine

People of Kerala had also been on the forefront in the field of ethnic medicines and therapy. They also had acquired the know-how about the use of plants and herbs for healing purposes. The use of sapper wood pieces for potable water treatment is a good example. Kerala from earliest times till date has been the major centre of nature therapy.

Hortus - Some unanswered questions

Emmigration of Goan community on a large scale to Kerala began from 1560. Hortus was compiled after 1670 in which three medical practitioners of Goan origin also played important role. This would mean Goan medical practitioners created their imprint in this field in this intervening period of hundred and odd years. Can this be accepted as a historical fact?

If one goes through the testimonial appended to the first volume of Hortus signed by one scholar Vinayak Pandit, it becomes evident that Vinayak Pandit was well versed in the knowledge of Portuguese. (The original testimonial in Konkani was given by Vinayak Pandit and its translation in Portuguese appears with above testimonial).

Now the question is when and where did Vinayak Pandit learn Portuguese language? Was the tradition running in his family? In 1510 Portuguese landed in Goa. In 1560 his ancestors migrated to Kerala. Does it mean that in this period of 50/60 years did they acquire Portuguese language in Goa?

Even after migrating to Kerala did the family members continued this tradition of reading and writing in Portuguese? Or, could it have been learnt from the Portuguese traders then living in Kerala? Or, could it be possible that Vinayak Pandit took the lessons in Portuguese in his early age before migrating to Kerala? Did Vinayak Pandit travel to Kerala on his own or he was invited for certain purpose? (Hortus project had conducted a thorough and extensive study along the Malabar area. In those days Malabar covered area from Goa to Travancore-Kanyakumari. Possible, therefore he might have gone specifically to participate in this project). Or, he had elementary knowledge of Portuguese based on which he might have translated the Konkani testimonial in Portuguese? Or just his name has been used?

These are some but not the exhaustive questions that remain unanswered and are awaiting demystification. A thorough scrutiny is therefore needed.

Hortus – Evaluation of Konkani's contribution to it

It is beyond doubt that in the compilation of 'Hortus' there was valuable contribution of Konkani Vaidyas – medical practitioners. Unfortunately may be due to unintentional or deliberate reasons, the translations of testimonial in Portuguese / Latin has left a room to doubt regarding this. There has been misunderstanding in the minds of students of 'Hortus'. If similar errors have also occurred in the full text of the translation then there is a possibility that this valued contribution of Konkani scholars would escape the attention of the future generation.

It is argued that the local medical practitioner of Kerala by name Itty Achutanan has been given more weightage. Was Itty Atchutanan involved in this exercise from inception to the end or he was involved in the final stages remain unanswered. Some scholars have expressed doubt about his participation. A big research project like 'Hortus' must have been planned and executed on many fronts. It is very difficult to comment on this in the absence of any reference material.

However based on the strength of testimonial another exercise of translating the original work from Latin is urgently required to dispel all the doubts. This would ensure determining the authenticity of the real contributors.

I am sure such exercise would help Konkani speaking community to task under the glory and brilliance hitherto denied to them.

Multidimensional contribution of Hortus

Generally while evaluating 'Hortus' its contribution in the field of botany, herbal medicines and formulations and art are the limited parameters being discussed. However in each of the 12 volumes it has its own introduction, testimonials, studied notes on plants and herbs which throw light on the prevailing social, political and cultural history; and the status of the languages. More in-depth study on these aspects is necessary.

'Hortus' helped the subjects like systematic Botanical clarifications and taxonomy. This helped the next generation scientist by name Linneaeus in 1753 to develop his work in 'Binomial System of nomenclature' based on Species Plantarum. At the same time around 300 plants and herbs received global recognition and classification owing to 'Hortus'.

Illustrations in Hortus

The profuse use of illustrations is a major attraction of 'Hortus'. Each and every sketch with its minute details (with engraving on copper plate) is live replica of

the subject discussed. The parts of plant and free right from its roots, to stem, flower, fruit etc gets its distinct space in the art. Paintings of flowers carry all the minor details from stalk, petals, ovaries to pollens anthers. Similarly the fruits and seeds with its cross section painting are exposed to its minute details. For student of botany these illustrations are certainly of help but even for art critic this can be subject of great curiosity and use. Such had been the aesthetic sense of these artists and engravers.

Konkani word 'chitarllim' (meaning painted) used in the testimonial is another evidence of involvements of Konkani Vaidya in the work. The temples of Goa has this art work of painting, engravings in stone, wood and metal in abundance, which goes to prove that this art saw glorious days in the past. This tradition needs to be rejuvenated. 'Hortus' could be a source of inspiration in this direction.

The art work in India had respectful place only in temples in the form of wall paintings, architecture and sculpture. It has to be noted that 'Hortus' carried this eminence and in science and academic field.

Beginning of era of block-printing in Konkani

The testimonial in 'Hortus' and around 700 names of plants and herbs in Konkani language was the first ever example and evidence of use of block printing technology in India. The printed form of this text is first ever of its kind in any of the Indian languages and script (Exception for this could be Buddhist Literature).

In Portuguese times in 1622 first Konkani book was published (Doutrina Christam) and followed by many. But these books were meant for preaching and spread of Christian religion and were in Roman script. Here the text and the subject matter of 'the Testimonial in Hortus in Devanagari script is more significant as the subject matter was secular and academic in nature. The testimonial and names of plants and herbs in Konkani language in Devanagari script was the first ever printed book available to us.

Prosperous and successful community

When a society or community reaches pinnacle of its glory it is not just restricted to one field. The prosperity and success touches all the walks of society's life and its members. 'Hortus' proves this fact. 'Hortus' therefore has to be seen as a showcase of Indian society's achievements on social plane, medicine, botany, pharmacopeia, art, and so on.

Challenges ahead

It is great tragedy that a society with such a glorious and prosperous past remained backward. But the Goans in particular and Indians in general

are suffering from amnesia. Denounce whatever is indigenous and embrace whatever is foreign, has become the credo of the people.

The adoption of this dictum has caused this amnesia. Hence the re-invention of 'Hortus' is a first step to move out of the Macaulay bred and incubated self denouncement state of mind towards the direction of glorious future of achievement.

We will have to undertake certain challenges in the backdrop of this invention.

Whether the books on materials referred in 'Hortus' referred by Itty Achuthan and Goan Vaidyas were from manuscripts on paper or birch-bark or palm leaves. This will have to be investigated. Whether this tradition still thrives somewhere will have to be traced.

We have now a database of around 700 plants and herbs in the 12 volumes of 'Hortus', in Konkani. These plants and herbs require to be discovered and should be classified with suitable nomenclatures keeping in view passage of time.

Great efforts will have to be made for identifying these plants and herbs and will have to be preserved and conserved. All of us will have to share this burden. Prof. K. S. Manilal undertook valuable work of translation of 'Hortus' in English and Malayalam. This work demands dedication and devotion.

Many experts are of the view that British Pharmacopoeia consists of 75% drugs which has its origin in the plants found in India. There are many developed nations which are acquiring this conventional knowledge for the purpose of possessing intellectual property rights in the plant properties, usages, its use in medicine, its process and products. Once they succeed in obtaining the intellectual property right (IPR) they would lay their claim on patent rights of manufacturing and marketing.

Here we should remember the valiant intellectual battle fought by Dr Raghunath Mashelkar to stop the American pharma company from obtaining patent right on 'neem!'

Indigenous and conventional knowledge therefore has to be carefully collected and documented in a very modern scientific method. 'Hortus' should provide us source of inspiration in this task.

'Hortus' is medical – 'sukta' an encyclopedia on plant life. Let us revisit it again and regain it again.

Acknowledgment

I acknowledge with gratitude the arduous work undertaken by Shri. Payyanur

Ramesh Pai for the success of the National Seminar of 2013 and for the publication of this book. Despite his advance age he showed youthfulness in this work.

I also acknowledge with thanks all the participants, discussants, resource persons, chairpersons of the sessions and those who made contribution to the seminar.

Adv. Udaybab Bhembre first wrote two articles on 'Hortus' in 'Sunaparant' in 2013, therein highlighting the backdrop and the present status of 'Hortus'. He allowed publication of these articles in this book in English. I thank Adv. Udaybab Bhembre and Sunaparant for their permission. (Adv. Bhembre's views are well represented in the Seminar)

I also extend my gratefulness to Shri. B. Vijayan (IAS) – Chief Secretary of Govt. of Goa, and Shri P. Mathew Samuel (IAS) and Dr. Wilfred Mesquita – Chairman of NRI Commission, Shri Manohar Dicholkar, Director of Directorate of Archives & Archaeology, Govt. of Goa, who sent their messages and best wishes for the success of this publication.

I thank Shri. Mayur Nadkarni for the artwork done for the cover and inside pages; Riya Graphics for the data entry work, Lokmanya Process, Khorlim, Goa for printing of this book as well as Shri. Lilesh Kudalkar in his assistance in the creation of this book. I also thank Shri. Madhav Bastodkar, Shri. Srinivas Kamat and Ms. Antara Bhide for translating the Konkani Text into English and also officials and employees of Goa Konkani Akademi.

I also express my gratefulness to Shri. Basti Vaman Shenoy, President of World Konkani Center for placing pre-publication order of 1000 copies of the book. I also thank Shri. Bhaskar Shenoi, President of Anugraha charitable Trust, Kerala for placing an order of 300 copies of this book.

Finally I thank all those individuals and institutions who attended the seminar and publication ceremony of this book.

I hope that the students, research scholars and the readers would welcome this book with great warmth and love.

Bhushan Bhawe

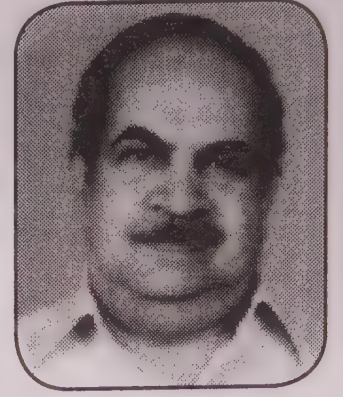
Editor

Mardol, Goa

30 May, 2014

From the Co-Editor's Desk

Satyameva Jayate !



A National Seminar organized in Goa, about a book from old Malabar region, is not something commonly heard of. It may sound unique, and precisely that is how it was, when held in the State Museum Auditorium at Panaji in February 2013.

Goa is considered as the homeland of Konkani speaking people. There are millions of migrant non-resident Goans cherishing both sweet and sour memories of the past. In the 16th century the region of Malabar stretched from Goa to Kanyakumari. The three Konkani physicians who documented a Testimonial in the 1st Volume of Hortus Indicus Malabaricus, a botanical encyclopedia published in Latin language in 1678, assumes great significance in this background. Significant because their Testimonial appears in Konkani language using Devanagari script. The book carved a niche for two Indian languages in the History of printing. It is well known for being the first block printing in the Konkani and Malayalam. Delving deeper into the treasure of traditional knowledge on medicinal plants that the book contains, one stumbles upon several precious data elements.

Topic of the Seminar is self explanatory. The significant role played by three Konkani physicians in the making of Hortus Indicus Malabaricus is well documented in the Testimonial, but many readers are not aware of this. Even the book was not popular for over two centuries due to several factors. The then Dutch Commander of Cochin, Henrik Van Rheede, conceived such a monumental work and mobilized resourceful persons to make it happen. And native Ayurvedic Vaidyas like Appu Bhat, Ranga Bhat, Vinayaka Pandit and Itty Achuthan contributed their expertise in the process. Added to this, Van Rheede mustered support from a few more, like Rev. Fr. Matheus, Kings of Kochi and Kozhikode, and some European cartographers and calligraphists.

True, all of the above made it happen. But unfortunately the role of the Konkani physicians is found to be highlighted in a dim light by many scholars. Perhaps the contents of the Testimonial was not properly understood even in those days. And its translation contained in the original work itself is faulty and

incorrect in many respects. Precisely that is how the disinformation activity started. Placing the Truth in proper perspective was the foremost objective of the National Seminar. It is like correcting the errors in history. Equally important is to make the Truth known. Yes, the task of making it known to the entire world.

People mistook the Devanagari text to be in Sanskrit. It took long for people to recognize the term “Lingua Bramanica Antiqua” used in the book, as Konkani language. Starting point of the correction process began in the late 19th century. Several individuals have been enlightening on the subject since several decades. However, when the translations of the stupendous work into English and Malayalam were brought out in 2003 and 2008 some more glaring lapses were noticed.

Commencing an awareness campaign is like creating a history in itself. And that is the uniqueness of the National Seminar. Initiative for the Seminar came from Anugraha Charitable Trust, Ernakulam, from Kerala. And the campaign was welcomed in the cradle of Konkani language, when Goa Konkani Akademi took up the event collaborating with the Govt. of Goa. The present volume is a record of the proceedings of the Seminar. The campaign touched a new dimension while the World Konkani Centre, Mangalore, placed a bulk order for 1,000 copies of this volume !

On behalf of the organizers let me express a deep Vote of Thanks to all supporters of the Seminar, especially Directorate of Archives & Archaeology, Govt. of Goa. The students and delegates who attended the event made it a memorable one. Contributors of various papers added value to the efforts.

And it is our wishful thinking that similar events should be held in many more places. Let the ultimate Truth prevail, Satyameva Jayate !

Payyanur Ramesh Pai

Co-Editor

Ernakulam - 682 035

27th May 2014

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Inaugural Session

Contribution of Konkanis to Hortus Indicus Malabaricus

Chief Guest : *Dr. Wilfred Mesquita (Goa)*

Chairperson : *Shri. Pundalik Naik (Goa)*

Keynote Address : *Shri. V. V. Bhat, IAS (Karnataka)*

Guest of Honour : *Shri. Manohar L. Dicholkar (Goa)*

Guest of Honour : *Shri. Basti Vaman Shenoy (Karnataka)*

Guest of Honour : *Shri. R. Bhaskar Shenoi (Kerala)*



Hortus Malabaricus (Garden of Malabar) and Konkan and Konkani

Key-note Address

- V. V. Bhat

Abstract

Hortus Malabaricus is an important documentation of ethno-botanical and ethno-medical scientific knowledge of the 17th century India. The people of Konkan region (Konkanis) have contributed immensely to the compilation of this documentation, commissioned by Vahn Rheede. It is significant that their contribution is acknowledged in the preface in this compilation, in order to lend authenticity to the text. In this article we will briefly deal with the motivations of the explorers of India's plant wealth, the methodology of the contributors, the contributions of the people of Konkan region and what constituted the Konkan region, according to their perceptions.

1. Introduction

Hortus Indicus Malabaricus compiled under the leadership of Hendrik Adriaan Vahn Rheede tot Draakenstein (Hendrick, S/o Adrian, from Rheede), a Dutch Commander of Cochin hailing from Netherlands (born in 1636) was translated from Latin to English by Prof. K S Manilal of Calicut University and published by Kerala University (2003). Its first publication in 12 volumes took place between 1678-1693 from Netherlands. The volumes dealt with the 742 plants/flora (with 792 copper plate engravings) of Malabar/Konkan region. It is recorded that "a broad committee had been brought together from various parts of Malabar with the help of regional Rajas....", to compile this work. Four of the prominent among the 19 Malabar Scholars who contributed have been mentioned in volume one of the Hortus – Itty Atchutan, Ranga Bhat, Appu Bhat and Vinayak Pandito. The role of Raja Veera Kerala Varma, Raja of Cochin and the translators has also been acknowledged.

2. Importance and influence of Hortus Malabaricus

Dr. Annamma Spudich, scholar in residence at the National Centre for Biological Sciences, Bangalore, has attempted an indepth study of this work. The NCBS, Bangalore has arranged an exhibition in the Regional Museum of Natural History in Mysore titled - "Such Treasures and Rich Merchandize – Early Plant Heritage of India". This standing exhibition has not only highlighted the importance of Hortus Malabaricus but also has brought out the role of other European explorers of India's plant wealth like Garcia da Orta at Goa ("Colloquies on the Simples, Drugs and materia medica of India" - 1563),

Christophorus Acosta Africanu at Goa ("Tractado de las Drogas e Medicinas de las Indias Orientalis, con etc") and John Gerard ("The Great Herball").

She has noted the influence of Hortus Malabaricus on Evolution of Tropical Botany and Plant Taxonomy in detail by counting the references to the Hortus in the subsequent works :

(Numbers indicated within the brackets are the number of references to the Hortus)

1. Jan Commelin, Catalogus Plantarum Horti Medici Amstelodamensis, 1689 (64)
2. John Ray, Methodus Plantarum Nova, 1682 (300)
3. John Ray, Historia Plantarum, 1686 (615)
4. Paul Hermann, Musaeum Zeylanicu, 1717 (200)
5. James Petiver, Philosophical Transactions of the Royal Society, Vol 20 (138)
6. Georg Everhard Rumphius, Herbarium Amboinensis, 1628-1702 (150)
7. Carolus Linnaeus, Flora Zeylanica, 1774 (210)
8. Carolus Linnaeus, Species Plantarum, 1753 (250)
9. Carolus Linnaeus, Species Plantarum, 1762-1763 (320)

3. Role of Scholars of Malabar/Konkan

Vahn Rheede himself has recorded about scholars of Malabar in Vol-1 of the Hortus that "Some of them have no other occupation than temple service and are exempt from all worldly cares, being constantly occupied with genteel wisdom, star-gazing and natural sciences."

Further, "Indeed they disputed and strongly defended their own opinions, but with incredible modesty, such as you might even miss in the most distinguished philosophers of the world, without any acerbity, mental disturbance or neglect to respect each other's opinions".

It was noted in the Hortus about Indians that "They usually live to a very great age and their health is cared for by native physicians who do not fetch medicaments from other regions, or at all events as possible, since they are content with only those medicaments their region supplies bountifully, a custom which is imitated with success by the Europeans". "Indeed it would be possible to make use, with less expense and with greater profit, of Indian medicaments, either the same or at any rate with the same, with superior curative virtues, for the above mentioned reasons".

Vahn Rheede mentioned in the prefix that "physicians, both Brahmans and others... made in their own language lists of the best known and most

frequently occurring plants, on the basis of... the season... This was then given to certain... experts, entrusted with collecting... the plants with the leaves, flowers and fruit...”

“Three or four painters... at once accurately depicted living plants... To these pictures a description was added nearly always in my presence.” Even the Rajas delighted in a participated in this enterprise - “...the princes were so inquisitive and so kind that they provided us plentyfully through their men with all sorts of plants.”

Use of languages of Latin, Malayalam, Arabic and Konkani in Devanagari script (Lingua Bramanical antique) can be seen on the pictures. This would have helped in better identification of the plants inspite of the multiple names in currency. A sample of the difficulty invovled in translation can be seen in the translation of the preface of the 3 Konkani Vaidyas, wherein the word Nighantu (Sanskrit) has been mentioned as 'Manhaningattnam'!

The signed statement in Malayalam Kolezuthu script, attributed to Itty Atchuthan has been prominently placed in vol-1 of the Hortus. Atchuthan is identified as a member of the Chego (ezhava) community. The source of information referred to as “in our book” by Atchuthan (palm leaf manuscript/grantha?) has not been traced. Reportedly, attempts to identify the descendents of Atchuthan have succeeded. There is uncorroborated story that the manuscripts belonging to his family might have been burnt.

The preface of Ranga Botto, Vinaique Pandito, and Apu Botto (translated in Portuguese spelling, indicating their possible Goan origin), is available in English as follows :

“This is. From the year 1595, called (named) by Brahmins Palivanapaco (which with us in the year 1674) to the 20th of April of the year called Requecao (which with us is 1675), I, Renga Batt, Vinayak Pandit and Appu Batt, all three from the race and religion of Brahmins and ancient Gymnosophists in the District of Cochin, as per the order of Noble Lord Henry a Rheede, Governor of Malabar Territories and of the City of Cochin, through our servants who have knowledge of trees, plants, herbs and creepers, caused them to be brought from the Malabar region with their flowers, fruits and seeds to the above mentioned city, in order that they may be drawn and described, the names of which are written in our book called MANHANINGATTNAM in which are contained their medicinal powers and properties and besides these, we have added to these whatever we have learned and observed by long experience and with great labour and sweat and in order that this book may be completed, we have worked for the space of almost two years, so that each and anybody who will read or see it, could have faith in it which he himself would have given, if he himself would have experienced the things written it; we swear therefore according to our custom that all that is contained in it is true, in testimony of

which we made these papers (documents) which we have signed with our own hands. Given in the city of Cochin, on the 20th day of April, 1675.

Ranga Batt

Vinayak Pandit

Appu Batt

Translated from the language of the Brahmins by the undersigned

VINAYAK PANDIT

into the Portuguese language,

and from Portuguese into Latin by me

CHRISTIAN HERMAN de DONEP

Civil Secretary of the City of Cochin.

We have given the above version of the translation to prove that Vinayak Pandit translated the language of Brahmins (Konkani in Devanagari script) into Portuguese language. The knowledge of Portuguese is a definite indicator to the Goa connection of atleast Vinayak Pandit.

Inspite of the poor translation, we can easily understand its authenticity, the methodology adopted and the knowledge base of the contributors. The original Konkani in Devanagari script clearly states that they followed their book of medicine and the proof of the Niganthu. A better translation is possible and has been done.

4. How do we investigate the origin of these 3 Konkani Vaidyas and their descendents ?

The simple inference could be that, since Vinayak Pandit knew Portuguese, they might be the Goud Saraswat Brahmins of Goa who were either invited to Cochin for this work or who were already settled in Cochin. Tracing the geneology of their families may be a difficult but fascinating investigation into social history. Since the medical texts and the Niganthu referred to by them in the preface have not been named, just as in the case of Atchuthan, we cannot infer the source material/granthas.

5. Motivation behind the work of foreigners on Indian Ethno-Botany and Ethno-Medicine

Along with the trade in spices, trade in materia medica (medicinal materials, particularly herbs, plant materials and products, nuts etc.) constituted an important part of the economic relations and trade transactions between India and the West. The search for spices is what led the Westerners to India (including Vasco da Gama's introduction to 'Samoothiri' (Zamorin or King) of Calicut (1498). Surat, Goa, Karwar (called "the port of pepper") were important trading centres.

Acosta came to India to "see the diversity of plants God has created for human health". "Hindu medicine" was apparently quite advanced as compared to the

knowledge of medicine in the contemporary west. Therefore taking advantage of potential for trade in medicinal plants was obvious. Further, in view of the shortage of European doctors to treat the European soldiers' wounds and diseases, it became necessary to rely on local Vaidyas. This was more particularly so of tropical diseases, which were new experiences for the Europeans.

It is important to note that more than 50 drugs have been discovered from Ethno-Botanical and Ethno-medical leads. (like Quinine, Ephedrine, Aspirin etc.,)

6. Malabar/ Konkan region

The regions of India, approximately marked by the European cartographers during / after their visit to the coast line of India show the approximate boundaries. These boundaries will have to be taken as indicating. Further, some of them reflect the extent of area differently. Malabar, Konkan etc., are indicative of large tracts of coastal India. It broadly confirms to the description of Parashurama Kshethra, which has been generally identified as between Goa and Cape Camorin. Some sources identify the Konkan region from Bharuch in Gujarat coast to Kanyakumari.

Sahyadri Khanda of Skandha Purana (II Chapter) refers to the Konkan region as from the end point of Sahyadri in the north towards south in the following words :

“Padamatram tu Gayathri Paraga Konkane Sthitha :

Sahyadri Mastake Bhage Yojanam Chaturbhavet

Yojanam Shata Visteernam Kaunkanamiti Namata :

.....”

The Konkani speaking people at present are predominantly in Goa, coastal districts of Karnataka and Kerala. The social history of Goud Saraswat families indicate their settlements of upto Cochin. However, the region can be broadly taken to mean the area from the northern end point of Sahyadri mountains to the southern Kerala. The flora of this portion of southern India was the subject matter of exploration by the Europeans.

7. Other western studies of India's plant wealth

Ethno-Botanical knowledge of Indians was inherited through generations because of incorporating flowers and leaves and plant products in systems of worship. Atharva Veda mentions nearly 100 plants and their medicinal uses. Amarakosha mentions alternative words for about 300 plants. 8 flowers are used for the worship of Shiva, from the period of Rudra Sukta onwards. Families in the west coast, more particularly Goud Saraswat families observe Chudi Pooja every year in which different flowers and vanaspathi are collected and used for worship. Such practices enabled the building up of a rich base

for diversified ethno-botanical and ethno-medical knowledge in India.

Information on specific studies of flora of the west coast is available in Basel Mission Archives in Mangalore. The important among these are given below :

1. Dietrich Brandis – Indian Trees (an account of trees, shrubs, woody climbers, bamboos and palms indigenous are commonly cultivated in the British Indian empire, 1921, London Constable and Company Ltd.,)
2. I. Pfeiderer – Glimpses into the life of Indian Plants (an elementary Indian Botany – 1912 Basel Mission book and tract depository)
3. A C Burnell – Elements of South Indian Palaeography (from the 4th to the 17th century A.D – being an introduction to the study of south Indian inscription and MSS, 1878 London, Trubner & Co.,)
4. Basel Mission - Five hundred Indian Plants (their use in medicine and the arts) in Kanarese (1922)

8. Action Agenda

The above references to the rich biodiversity of the west coast is meant to inspire and rediscover. The relevance of ethno-botany and ethno-medicine of the area. The knowledge embedded in the people as well as the plant wealth which is already discovered and yet to be discovered should not be allowed to lapse. Therefore, we have to continue these intellectual traditions and inheritance of formal and informal knowledge. Biodiversity has to be conserved. It is also necessary to propagate and increase biodiversity for sustainable harvesting of benefits for human welfare and health from such bio-resources. Research into the contribution of the Konkani Vaidyas and their descendents may be a rewarding exercise which may bring out more information about plants and plant based medicines. A block of prestine forests may be named in the memory of the great traditional Vaidyas of the west coast, particularly in the States of Goa, Karnataka and Kerala.

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2. Prof. K. S. Manilal : Hortus Malabaricus, Kerala University, 2003.
3. J.Gerson Da Cunha : Sahyadri Khanda (of Skanda Purana) 1877.
4. Basel Mission Archives, Mangalore.
5. World Konkani Centre, Mangalore.

Hortus Malabaricus – A Milestone Work

- Basti Vaman Shenoy

The Latin encyclopedia of plant species, *Hortus Indicus Malabaricus*, stands an unparalleled work of its kind. It was produced in 17th century, at the initiative of the then Dutch Commander of Cochin Henrik Van Rheede, who sought to enlist the cooperation and collaboration of knowledgeable persons in his command area. Definitely the work is an outstanding example of the hard work of several years and of several people.

The book was translated from Latin to English and Malayalam only after 325 years of its original publication. Due to this much of the contents of this monumental work was not known to the outside world. Information on those who collaborated with the magnificent task were also left in dark. But it remains a fact that *Hortus Malabaricus* is the first book in Konkani using Devanagari script, deflating block printing technology. We do not have another book to show where Konkani language is written in Devanagari language prior to *Hortus Indicus Malabaricus*. This book was an important document projected while trying to get recognition for Konkani in the 8th Schedule of the Indian Constitution. Therefore it is a milestone work for lovers and students of Konkani language.

If we go through the contents of *Hortus Malabaricus*, we come across a Testimony written in the First Volume, in Konkani language. Besides, the Konkani names of the plant species contained in the book are also provided, apart from Dutch, Malayalam and Arabic names. This obviously proves that among the several collaborators there were prominent Konkani persons, who had thorough knowledge of plants and their medicinal values. They were none other than Appu Bhat, Ranga Bhat and Vinayaka Pandit, as evidenced from the Testimony found in the first volume. Unfortunately people did not care to bring out the correct translation of the Konkani Testimony so that the outside world gets the correct picture.

I am glad that a conscious effort is being taken to spread the information on the three Konkani contributors. It is only appropriate that such forefathers who contributed their knowledge for the benefit of the entire posterity are remembered and recognized by later generations. As President of the Konkani Language & Cultural Foundation I feel glad to associate with this National Seminar and hope all delegates will benefit from the deliberations.

● ● ●

Contribution of Konkanis to Hortus Indicus Malabaricus

- R. Bhaskar Shenoi

Respected Pundalik Bab, Chairman, Goa Konkani Akademi and President of this occasion, Dr Wilfred Misqueita, Commissioner of NRI Affairs, Govt. of Goa and the Chief Guest of the function, Sri V V Bhat, Member of Finance, Atomic Energy Commission, an ardent Konkani lover, Sri Manoharbab, Director, Archives & Archaeology, Govt. of Goa, who took active interest in holding this Seminar, Konkani Sardar Basti Vaman Shenoy who is spearheading Konkani renaissance through Viswa Konkani Pratishtan, other dignitaries and delegates.

Today I have great pleasure to stand before you witnessing the culmination of a dream of many Konkani lovers, who were eagerly waiting for an opportunity to honour their three ancestors, Appu Bhat, Ranga Bhat and Vinayak Pandit. This occasion is all the more special since it is taking place in the Konkani homeland of Goa.

We have been passed on information through many generations that our ancestors had left Goa against their will and they have to undergo many sufferings during their sojourn to other parts of the country. In Kerala, they mainly settled in the coastal areas since they came by the coastal route.

The community at large co-existed and their lovable and service oriented nature coupled with entrepreneur qualities helped them to survive in alien places. They were also able to contribute for the welfare of their rulers and general public. Their acumen and intelligence were a part of their genes that they carried from their homeland.

There were many stalwarts from this community in the fields of Ayurveda, trade and business, linguistic and spiritual matters, education and finance. The community was very true to their purpose of migration, that is to uphold their culture, traditions and mother tongue, Konkani. They established a number of religious institutions and schools and made their colonies around them. Even after centuries of settlement in Kerala, we have kept Konkani very close to our heart and even now Lakhs of people speak this language.

The contribution of the Trio, renowned Ayurvedic Physicians who were equally conversant in Konkani, Sanskrit and (one of them even in Portuguese) in the compilation of Hortus Indicus Malabaricus, the 17th century magnum treatise was not noticed by the probing eyes of many scholars in Kerala due to the fact that they have written their role by a testimonium in Konkani with Devanagari script. The 12 volume book which was first printed at Amsterdam during 1678-1693 with the text in Latin, depicting over 650 species of medicinal plants found in Malabar with 794 illustrations was immediately recognized internationally and still considered as an authoritative work on that subject.

It is a great pride to note that the Trio are also credited for the sketches of the plants and for the use of Konkani to depict the names of the species.

It is to be also to be noted that the Trio were the only members of that team constituted by the then Dutch Governor, Henrik Van Rheede, who were associated with the project from the start to the end. This shows their remarkable and sincere dedication to the cause. That they could adjust very well with their teammates who were of Dutch, Portuguese and Kerala origin and could communicate and go along with them to successfully complete the compilation needs to be appreciated.

The passion of the migrant Konkani community to their mother tongue Konkani is well demonstrated by the Trio. The book was also credited as the first block printing of Konkani in Devanagari script and also of Malayalam, the local language of Kerala. It is only fair to acknowledge that this publication has helped a lot to establish Konkani as an independent language and to get its due recognition in the Indian Constitution.

When the present generation is still afresh with memories of teasing and chiding by the people whenever they spoke Konkani in public (in Kerala) even in recent times, use of Konkani by the Trio centuries back speaks volumes of their sincere love and pride in our mother tongue.

Anugraha Charitable Trust has also charted out a new route in tandem with our charitable activities to educate the need to preserve and develop Konkani especially in Kerala. Thanks to Governments of Goa and Kerala, and other NGOs with common interest, we are able to enthuse the masses to take pride in our tradition and mother tongue.

It is a matter of recognition to our activities that successive Chief Ministers of Goa have given due consideration to our representations. We are very happy to note that “Runanubandh” – Goa Centres proposed in the Goa budget is a result of our representation made to the Government.

We have to move forward with greater pace and we hope that Government of Goa will initiate immediate steps to establish ‘Runanubandh’ which will be a fitting commemoration to the Trio and can act as a nodal centre for the development of Konkani. Our suggestion to include representatives of Non-resident Goan community from different states in Government forums in Goa will also help to strengthen the cultural bonding among Konkani community.

I thank the Goa Konkani Akademi, Directorate of Archives and Archaeology, Govt. of Goa and Konkani language & Cultural Foundation, Mangalore for accepting our proposal and associating to hold this seminar.

I conclude my address with prayers for many more such activities in future.

Jai Hind, Jai Konkani.

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Session : 1

**History of Konkani People,
Culture and Language in Kerala**

Chairperson : Dr. N.S.Prabhu, Bangalore (Karnataka)

Resource Person : Adv. Uday Bhembre, Margao (Goa)

Resource Person : Prof. E. Ismail, Kozhikode (Kerala)

History of Konkani People, Culture and Language in Kerala

- Dr. N. S. Prabhu
Chairperson

Shri V. V. Bhat has highlighted, with talk and slides, an array of facts and aspects of significance, points of potential doubt or obscurity, and challenges still awaiting researchers, in the study and interpretation of HORTUS MALABARICUS, including the role of the three Konkani pundits in it. He has also, in that context, made reference to the history of the Konkani people in Kerala and their close relationship with the Dutch establishment there.

Let me, in these brief remarks, make a few points about the larger history of the Konkani people, from their first arrival on the Goa coast to their eventual dispersal to and settlement on the coastlines of Kanara and Kerala.

I think this larger history can be divided, broadly, into three periods:

1. From arrival in Goa to about 800 A D
2. From 800 to about 1500 A D
3. From 1500 to about 1800 A D

We have some historical knowledge of the second period, with some Konkani-sounding names occurring in inscriptions of the Southern Shilaharas in Goa during 800-1000 A D, and many more of them in inscriptions of the Northern Shilaharas in Thana/Colaba during 1000-1200 A D. It is also possible to imagine how the Konkanis in Goa might have been affected or influenced, after 1300, by Maliik Kafur's raids, Tughlak's raids, and the Bahmani, Vijayanagar and Adil Shahi rules, leading up to the Portuguese conquest just after 1500.

A much fuller picture is available to us of the third period – of the Portuguese rule and missionary excesses during 1540-1600, the resulting migrations and major settlements in Bhatkal and Cochin, and the various ups and downs under the local rulers as well as European traders, up to the beginning of stable British rule around 1800.

But we have little knowledge of the first period, prior to 800 A D – that is to say, little *historical* knowledge. What we have, instead, is a mythological account – about the super-human Parashurama's importation of a group of Brahmins from Tirhut in northern Bihar. Mythology may well reflect some historical events, but can hardly be a substitute to historical reconstruction.

Some facts and possibilities are, however, beginning to emerge. We learn that there was an ancient trade route from north-eastern India (mainly present-

day Bihar, the seat of the pre-Christian Magadh empire) to Konkani coast in the south-west. ('Aparant', which was then the name of the coast, meant 'the western end' - perhaps the western end of the trade route). The trade then continued by boat across the Arabian sea to Persia, Abyssinia and Greece, and what is Goa today - Tiswadi in particular - was the main point of departure and arrival for the boats.

Trade routes traditionally served as paths taken by pilgrims, missionaries and migrants driven by different needs. Buddhist monks in Emperor Ashoka's time arrived on the Goa coast and departed by boat to Simhala; and Jains - both holy men and merchants - arrived to settle down and spread out along the coast - both from the early seat of these faiths, namely Bihar.

Bihar also had a population of ancient residents of India, related linguistically and genetically to Australian aborigines and consequently referred to technically as *austrolesian* or *proto-austriac* and known to us today as Mundari, Santali and other tribes living mainly in the Chota Nagpur area. Groups of migrants from some of these tribes - notably *Kharvas*, *Kols* and *Gavdas / Kunbis* - are believed to have migrated to Goa in the early centuries of the Christian era. They brought with them the cultivation of arecanut (which they called 'gua' and which may have given the name 'Goa' to the area, just as it did to 'Guwahati' meaning 'a row of gua trees' in Assam. They cleared tracts of land for cultivation, formed villages and practised their distinct system of ownership and crop-sharing which came to be known as 'gaonkari'.

It seems plausible that other groups of people in Bihar took the same path in subsequent centuries, including the ancestors of Konkani Brahmins, looking for a better life. This must have happened not long after the arrival of Gavdas, since the Konkani Brahmins were partners in the gaonkari system - and probably adopted some of the gods of those tribes including, in particular, the mother goddess in different forms.

One other link with north-east India has to do with the Gaudapada Mutt in Goa, which later came to be known as the Kavale Mutt. There was a renowned Vedic scholar in the north Bengal area (which was known as 'Gaudadesha') who most probably lived in the 5th century A D and wrote a commentary on the Upanishads, known as 'Aagamashtra'. This work was highly respected by vedic scholars of subsequent generations and proved to be the source of inspiration, in the eighth century, to Shri Shankaracharya in formulating his highly influential *advaita* philosophy. We do not have any name for the north Bengal scholar, other than *Gaudapada* ('The holy man of Gaudadesha') and his 'Aagamashashtra' is also referred to as 'Gaudapada-kaarika' ('Gaudapada's commentary'). A monastic tradition which must have started from him seems to have used 'Gaudapada' as a title for successive generations of monks (Just as 'Shankaracharya' became a title for all successors). One monk of

the Gaudapada tradition must have travelled the distance to Goa and started an ashram or mutt there. It is a reasonable guess that he travelled on that trade route either at the invitation of people who had migrated earlier from the same 'Gauda' region or in the knowledge that there was a settlement of his 'fellow-Gaudas' in Goa who were potential followers. This Gaudapada monastic tradition as well as the arrival of one of its monks in Goa must have happened well before the time of Shankaracharya, since neither Shankaracharya nor the early monks in Goa showed signs of knowing about the other.

I think it is possible to make at least a rough reconstruction of the first period of the Konkani Brahmins' history in Goa from such facts and probabilities.

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Map of Malabar (1616) – Cartographer : Petrus Bertius, Amsterdam

334 Years Old Event that Showcase Konkani Prowess

- Adv. Uday Bhembre

Many Goans today are not aware that some 400 – 450 years ago there was a great tradition in Goa of knowledge in Ayurveda and its medicinal practice. After the Portuguese conquered Goa, they had put a ban on the Hindus moving about in palanquins. To this rule there was only one exception. And that was for Ayurvedic physicians. We can read about this in the pages of Goan history. Among the Portuguese in senior official positions there is mention that they had more faith in the native Ayurvedic physicians than their own doctors. Perhaps Dada Vaidya was the most competent physician of the Ayurvedic tradition of his time. That the Portuguese installed only one Hindu's statue and that too of Dada Vaidya linked to his proficiency in Ayurveda medicinal practice is to be noted. But very few people are aware of this tradition. For this reason maybe today the amount of intense interest that is current among the community of Konkani speaking people in Kerala is something that many Goans are not aware of. This intense interest is related to the 'Hortus Indicus Malabaricus' – a monumental book related to medicinal plants.

What is the history of this book? And why this intense interest in Kerala today?

It is difficult to give the answers to these questions in a few words. Without going into the background and analyzing it, it is still more difficult to understand the matter. But even then there is a need for us to understand it. The reason for this is that in this there is the history of the prowess of the Konkani person.

In 1510 the Portuguese conquered Goa (the Tiswadi taluka) and after that their Christian priests and missionaries started arriving from 1540 and commenced on their program of proselytisation of the natives. This program among other things involved the demolishing of temples, breaking of sacred idols and burning of religious books. In 1560 the Inquisition was set up which was like putting oil into an already blazing fire. To escape this persecution many families left their homes and properties in Goa and moved south. Some families stopped and settled down in Karnataka, while some others went further and reached Kerala. There the king of Cochin gave them shelter. Today in Kerala there are about seven to eight lakh Konkani speaking people. All their ancestors came from Goa. Among them the largest proportion of people are from the Kunbi community. There are also Saraswats, Daivadnyas, Brahmans and Vaishyas.

At that time in Kochi (earlier name Cochin), there was a trading post of the Portuguese in the area called Fort Cochin. The Dutch were seeking to displace

them. After one or two skirmishes by the Dutch in this regard and after 1663 the Portuguese had to give up the trading post to the Dutch and leave Fort Cochin. The Dutch then slowly established their control over that area. Between 1667 and 1673 Admiral Henrique Van Rheede was the Governor there. We cannot establish about what is attributed to him and whether it is true or a figment of imagination. But if one takes the capability of Dada Vaidya into account as an Ayurvedic healer then this information from Cochin could be true. The information is as follows:

Governor Henrique Van Rheede's wife had fallen sick. Every allopathic medicine was tried but she could not be cured. Finally someone gave him the advice to try the treatment with Ayurvedic physicians. Accepting the suggestion Governor Rheede called in three Ayurvedic physicians – Appu Bhat, Ranga Bhat and Vinayak Pandit. The descendants of those that had gone from Goa in the 16th century. They took the help of the Keralite Ayurvedic physician, Itti Achuthan. All four examined the Governor's wife and assessed the disease, discussed the treatment among them and decided on what to do. The treatment was successful and the Governor's wife's condition improved and she was cured. From this incident Governor Rheede developed faith on two things – the capability of all the four Ayurvedic physicians and the efficacy of the abundantly available medicinal plants in India.

With this faith Governor Rheede decided to implement a large project. To collect the medicinal plants available in the Malabar region (the region at the extreme south of the western coast of India) and to write a book on the healing powers of these plants and bring it to publication. This major project he entrusted to Appu Bhat, Ranga Bhat, Vinayak Pandit and Itti Achuthan. Not only did they collect medicinal plants and vines on their own but also sent other people known to them here and there to bring back medicinal plants and herbs; they then planted these in Cochin to make a botanical garden; a Carmelite Father Mathew drew pictures of each piece of vegetation – plant, vine, leaf, flower and seed; the three Konkani physicians would write down in Konkani the healing powers of each vegetation and Itti Achuthan would then translate the same into Malayalam. (Later this was translated into Portuguese and Latin also.)

This work was completed as planned. And at Cochin in 1678 this work was published in 12 volumes. In this book there are certificates given by those who compiled the book and this is given at the beginning. Appu Bhat, Ranga Bhat and Vinayak Pandit have affixed their mark on a single certificate while Itti Achuthan has given a separate certificate. The certificate given by the three Konkani Ayurvedic physicians is given in Konkani and in the Devanagari script; while Itti Achuthan's certificate is in Malayalam. The hand-written certificate of the Konkani physicians has been made into a block and reproduced in the book. This is the first impression of Devanagari Konkani in print. The certificate reads like this:

In the Saka era of Salivahana 1597 in the Samvatsara of Rakshasa in the

10th day of the dark half of the month Chaitra, Ranga Bhat so also Vinayaka Bhat, Appu Bhat, three Physicians residing in the Town of the Raja of Cochin, they with permission from Commander Andreke Frande sent over Malabar region giving honorarium to person having knowledge only of Medicinal trees, creepers, plants and branches existing there and that after bringing those Medicinal plants, fruits, flowers, leaves, seeds all that at seasonal times and after collections made have pictured, and afterwards we based on our dictionary of Medical treatises, the effect of Medicine and knowledge derived from personal experiment what made known to us the effect, the names of that Medicine were noted, we today standing nearby two years morning evening editing done of this book and that should not be said as false saying thus, we do affix our signature and that should be accepted and affirmed as true so saying we did give this in writing in Devanagari script. Shree.

Ranga Bhat

Vinayak Pandit

Appuchi Op

There is a great significance on three issues of this monumental book - 'Hortus Indicus Malabaricus'. The first is the use of the Konkani language to elaborate on the ability of Konkani people. The second is its place in the history of the Konkani language and thirdly, the use of the Devanagari script in the book.

Those Goenkars (Goans) who went away from their homes in the 16th century for Kerala would have left sometimes in the middle of the period between 1550 and 1575. Among them there would have been some Ayurvedic physicians who would have continued their practice in Kerala. Not only this but the fact that in their profession they had achieved recognition and fame; otherwise, who would have recommended their names to the Dutch Governor? And with what confidence would the Dutch Governor have given the massive task of compiling this monumental book?

The certificate given by Appu Bhat, Ranga Bhat and Vinayak Pandit has been given in Konkani and in the Devanagari script. Even if we assume that their ancestors reached Kerala in 1575, a period of 100 years had passed. This leads us to assume that even after 100 years they had kept alive the practice of writing Konkani. This also means that they were used to this practice when they left Goa and that is what they continued in the Raja of Cochin's kingdom. If this were not true then they would have been writing in Sanskrit or in Malayalam. If their ancestors did not have the practice of writing Konkani then after 100 to 125 years, why would they start writing in a completely new script?!

Some Goans prefer to understand that before the Portuguese came to Goa there was no practice of writing in Konkani. That writing was started by the European missionaries and for that they used the Romi script; and that is why the script of Konkani is Romi! We have evidence of Konkani writing in the Devanagari script from the 11th century. There is a huge, granite statue of Gomateshwara at Shravanbelagola in Karnataka. At the foot of that statue are

engraved two lines in Konkani: 'Shri Chabundraje Karviyele – Shri Gangraje Suttale Karviyele.' These lines are in the Devanagari script. And we get this engraving in a Kannada-speaking land. And therefore Goa being the primary seat of the Konkani language there would be no question of using any other script than Devanagari here. In story form dating back to the 15th and the 16th century Konkani Mahabharata and Ramayana have been found which has been transliterated into the Romi script; but the original writing must have been in the Devanagari script. The creation of these, according to some knowledgeable persons, is attributed to Krishnadas Shama. Krishnadas Shama knew Sanskrit and he had written the poem – 'ShriKrishnacharitrakatha' in Marathi. Why would he write then in Romi script? And considering that he already knew the Devanagari script there is no possibility of him writing at all in any South Indian language. From this we can derive that those Goenkars (Goans) who went and settled down in Cochin kept this tradition of using the Devanagari script alive and the certificate given by the Ayurvedic physicians prove that even after about 100 to 125 years this practice remained in use.

To this there is another supporting proof. Father Angelo Maffei has compiled a Konkani grammar in English and also an English to Konkani dictionary. Since he was living in Karnataka in these books he has used the Kannada script. Fr. Maffei's grammar was published in 1882. Here is the free translation of his introduction to this book from Kannada Language.

(The Konkani language was written earlier in what we call Balbodh or the Nagar script; sometimes it was written in the Modi script, in which Marathi was written. Now most people use the Kannada script; and if it is not able to reproduce all the pronunciations of Konkani, then it is found that the Latin script is more useful in this regard.)

This comment of Fr. Maffei and the writing in 1678 with the Devanagari script clearly provide proof that: The Goans who went in the 16th century to settle down in Karnataka and Kerala used to write in Konkani, starting with the Devanagari script and many years later they started using, in Karnataka - the Kannada script and in Kerala - the Malayalam script.

Some Goenkars (Goans) in the 16th century to escape from the fires of persecution and to save their religion and culture took shelter in Kerala. They had to face many difficulties and through these different obstacles found a way to establish themselves in their lives and pursue their livelihoods. Some got involved in trade and business while others got involved in teaching. Some started to study and do research on language while some others got involved in the field of art. They saw good times as also faced up to hard times. Some kings gave them support but others like Raja Ram Verma (he is also known as 'Saktan Thampuran') harassed them. Their temples were threatened; their loyalty questioned and they were tormented. But there is no evidence of anyone having returned from there to Goa. Maybe, some families may have gone to Tamil Nadu and Andhra Pradesh from there.

These Konkani people learnt the local language. Some scholars involved themselves in the study and research of the Malayalam language; others contributed to Malayalam literature. But what should be said in praise of these people is that they did not forsake their Konkani language and their Konkani culture. Not only that, they took pride in their language and culture and worked towards preserving it. This work of theirs is still continuing today.

The Kunbi people who had gone there had done many a time commendable work in protecting and preserving Konkani culture. In Kankon (Canacona) the 'Gadyan Ramayan', an example of traditional folk culture is almost extinct. But it has been preserved very well by the Kunbi community in Kochi. There it is called 'Godde Ramayan' and it is performed there. The Late Prof. R K Rao wrote it down, edited it and then published it. A form of songs and their performance called 'Shravon Geet' (the story of Shravan) they have also preserved. From among the Vaishyas in the Konkani speaking community there have been some good painters and also litterateurs. Daivadnya Brahmans and the Saraswats have shown their proficiency in the field of business and trade. The Konkani speaking people have merged themselves into the local milieu; but their intra-community barriers like those in Goa are stronger there. That is why it is difficult to talk of a single Konkani speaking community. But we need to recognize that essentially there is no difference between people who accept Konkani as their mother-tongue and subscribe to the tenets of Konkani culture.

In 1963 N Purushothama Mallaya founded the 'Konkani Bhasha Prachar Sabha' and started the movement to increase the usage of the mother-tongue Konkani among the Konkani-speaking community. Then the sessions of the Akhil Bharatiya Konkani Parishad started to be held there. The conferences of the Akhil Bharatiya Konkani Sahitya Sammelan were also held there later. In the movement of Konkani being recognized as a language by the Sahitya Akademi there is a contribution of the Konkani Bhasha Prachar Sabha from Kerala. After that the 'Kerala Konkani Academy' was formed. This organization involved itself in the study and research of Konkani and publication of books. Because of the work of these organizations and others today the Konkani-speaking community in Kerala is more aware and active with regard to the Konkani language.

In the first 100, 150 or 200 years that the Goenkars (Goans) settled down in Kerala, they continued to use the Devanagari script to write Konkani. After that at some time they switched to using Malayalam script to write Konkani. Some books and newspapers appeared in Malayalam script. But after the acceptance of Konkani as an official language by the Sahitya Akademi, these organizations in Kerala had other thoughts about the script and they started to use the Devanagari script to write Konkani. The books in Konkani that have been published there in the last 15 years have all been in Devanagari script. The Kerala Konkani Akademi brings out a monthly newsletter – 'Spandan',

which is in the Devanagari script.

In Kochi there are two primary schools where Konkani is taught as a language. The prescribed textbooks used in these schools are the same ones that are used in Goa. The Kerala government from the upcoming academic year has decided to offer from the 5th class Konkani as an optional subject. A progressive individual from among the Kunbi community, active in political circles, had taken the initiative to get this done. The Kerala government has taken a decision to establish a 'Konkani Sahitya Akademi Kerala' and work is on-going to initiate various Projects under the Akademi. The Kerala government has accepted that the Konkani speaking community is a minority. What pride the three Ayurvedic physicians exhibited in 1678 for their mother-tongue, one can see has grown in present times if one were to just walk around with the Konkani-speaking community in Kerala.

The first volume of 'Hortus Indicus Malabaricus' was published in 1678 and the 12th volume in 1703. A copy of the first edition of this book is in the Government Archives in Thiruvananthapuram. In one of the Akhil Bharatiya Konkani Parishad sessions held in Kochi the entire book was exhibited. Some years ago the Kerala University got the book translated into English and published all 12 volumes. In one of the Konkani Sammelans held in Kozhikode (earlier name Calicut) the English translations were exhibited courtesy of the Kerala University. This edition is no longer available; but one can see and read these volumes in the library of the Vishwa Konkani Kendra at Mangalore.

The 333rd anniversary of the publication of the first volume of this book was last year. The Konkani-speaking community in Kerala celebrated the occasion with pride. But on the other hand among them intense debate started due to the unusual behavior of some Malayali people. Prior to this, there was no conflict between the Konkani and the Malayalam languages. Even today, it is not there. Between the communities also there was no conflict and even today it is not there. The Konkani-speaking community while nurturing their language and their culture and expressing their pride in it have always worked towards enhancing the pride of the Malayalam language and their culture. Even then today some short-sighted Malayali persons are disparaging the prowess of the Konkani people and working towards committing injustice to them. All the credit for writing 'Hortus Indicus Malabaricus' they want to give only to Itti Achuthan, the Keralite Ayurvedic physician and make it a memorial to him. While doing that they are trying to minimize the role played by the Konkani Ayurvedic physicians in the writing of the book and look upon it with disdain. This is not only an insult to the three Ayurvedic physicians but also to the whole of Konkani society. This is being unfair, in fact an injustice, to Konkani prowess.

There is one opinion that the three Konkani physicians did the primary work for the book and Itti Achuthan, the Keralite Ayurvedic physician assisted them. But there is another opinion that the main work was done by Itti Achuthan and

the Konkani Ayurvedic physicians assisted him. But what actually happened is evidenced in the book. A certificate has been given in the book by Appu Bhat, Ranga Bhat and Vinayak Pandit in their mother-tongue, Konkani; and a similar certificate has been given by Itti Achuthan in his mother-tongue, Malayalam. Both certificates have been printed in the book. Along with it there is some text in Latin written by the Dutch Governor, Henrique Van Rheede. In that text Van Rheede relates how the three Konkani physicians openly discussed all issues; and how before arriving at any conclusion, they would refer their old books and how they would clearly expound their views. After reading this no one would believe that these physicians were just assisting someone. At most one can say that there is a contribution of all four in the making of the book. One wise person and three labourers or three scholars and one labourer was not the actual thing. The one who went out and collected the herbs and the plants, if we call him a labourer, he would still need to recognize the medicinal plant or herb; he would have to be knowledgeable about it. When all this is clear to disparage the work of three and to hold aloft the contribution of just one, this is not the sign of any wisdom.

This work done in Malabar in the 17th century relating to medicinal plants is historic. Both to those involved in the study of Ayurveda as also to the general public. Those who are involved in such work should be remembered. But not with a narrow minded perspective and an approach that this person belongs to us and this person is an outsider. Just like Kerala has helped the Konkani-speaking people who went there, so also have these people contributed to the progress of Kerala in the fields of education, industry, trade, business and culture. Where their capability or prowess is worth mentioning, if it is met with disdain, then it will be like showing ingratitude to them.

The Malayali people have reached all corners of the country. With their skills and their work they have been able to achieve varied positions. Even in Goa we have Malayali people. Just like the Konkani people they also preserve their language and culture but try to assimilate themselves into the way of life in Goa. Because they are Malayali should others look at them disparagingly? Negate what is theirs or what they deserve? Look at their contribution as insignificant?

Those among the Malayali people in Kerala who are seeking in a narrow-minded and thoughtless manner to categorise the contribution of Konkani-speaking people as insignificant, should tread carefully. The injustice to Konkani-speaking people in Kerala about their capability and prowess is an insult to the Konkani community – not only those residing in Kerala but to all the Konkani people in this country. The outcome of this insult will not be good.

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Hortus Malabaricus : An Intangible By-product of Colonial Cultural Heritage

- Prof. E. Ismail

Netherlands, popularly known as Holland is a European country on the North Sea which also became a party in the making of trade empires soon after the discovery of the new sea route to the East. Her independence from Spain virtually made her a formidable commercial power by the 17th century. But the religious animosity of catholic Europe championed by Spain continued against the protestant Dutch. The Dutch dream of domination of the south west coast of India was often intercepted by the Portuguese. The killing of two merchants, De Wolff and Lafer on their way to Calicut in 1603 by the Portuguese, further pushed the Dutch to Cochin. The advent of the Joint-Stock Trading company after the geographical discoveries and particularly after 17th century was a function of European economic change and growth. To a significant degree, the trading companies were dissimilar Associations of Merchant for the purpose of securing profit through trade emerged enormously. But the institutional frame work of the companies and the orientation of the individuals who constituted the governing bodies and who represented the company as factors were dissimilar, reflecting the economic, social and political environment of the country in which they were established. Hence each trading company had its own characteristics as in the case of Estado da India of the Portuguese, the English East India company and the Vereenigde Oost-Indische Compagnie (V.O.C.) or Dutch East India Company.

The Dutch intervention in the politics of Calicut, Cochin and Quilon was mainly motivated by the expulsion of the Portuguese and their trade empire centred on spices.² Before long the Europeans, have noticed the trees bearing fruits and plants and herbs with the medicinal properties, that cultivated in India. Bernier's notices with regard to the plants and trees of India are most noteworthy.³

Again going back to the ancient period the Sanskrit documents particularly Rigveda mentions 'sages' who accompanied the wandering Aryan tribes with "a bag full of healing herbs". They were obviously the early Aryan Physicians. They cared for the wounded, drew arrows and spears from their bodies, and knew how to remove injured eyes. They created artificial eyes, healed the stumps of amputated limbs, using the soma plant to alleviate pain...⁴

Moreover, ancient Indian Physician Susruta mentions about 760 medical plants writing on several diseases like Malaria, Plague, Tuberculosis and Smallpox⁵

The early Dutch travellers were not much aware of the herbal or even the vegetative potential of India because Pelsaert, the Dutch traveller of Jehangir's period, even complains the scarcity of fruits in India and its import from Kabul⁶ contrary to the statement of Abdul Fazal in Akber's period who gives details of more than seventy fruits cultivated in India apart from edible plants and trees that were grown in India.⁷

The medicinal uses of plants and trees in India are quite evident from the writers like Manucci when he says that the kernels of Mangoes were used as medicine, and coconut water was consumed for the treatment of diseases that affects liver and kidneys.⁸ While describing the floral diversity of India, Babur describes the importance of the fibres of lime soaked in boiled water as a therapeutic to the treatment of a poisoned patient.⁹

It is true that the celebrated Hortus Malabaricus is the first known systematic documentation of Intangible Natural heritages from South East Asia. It is published in Latin by Van Rheedee, the Dutch Governor of Cochin between 1678 and 1693. This 12 volume treatise includes illustrations of 742 plants with detailed descriptions and medicinal utilities. The illustrations are in Malayalam using Roman and Arabic scripts apart from Malayalam. A specialty of the work is that in most cases, their parallel names in Dutch, Portuguese, and Konkani are also given. All the medicinal plants had been collected and identified by three Gowda Saraswath Brahmins namely Appu Bhatt, Ranga Bhatt, and Vinayak Pandit and a conservative local Ezhava physician named Itty Achuthan who in his life time could not do any development or further interpretation on the work. The great lacuna of this 12 volume work in those days is the language itself.

Though attempts have been made to compile and edit some medicinal plants of India as that of Garcia de Orta and De Costa in the late 16th century, they were not either comprehensive or scientifically described. Hortus describes about 780 medicinal plants with their diagrams. With the Dutch and Portuguese names Malayalam and Konkani languages are also given to the plants for the benefit of the common people.

The Dutch occupation of Cochin and the landing of Van Rheedee there from the coromandal town, Tuticorin created a new phase in the history of the Dutch in Malabar and its adjacent island Sri Lanka. Rheedee was highly inquisitive and his already acquired knowledge about the medicinal plants of the region finally led him to institute a country Laboratory to the study of the chemical properties of some plants and their beverages. The treatment of the wounded soldiers in the off- repeated wars created a serious problem, particularly due to the scarcity of modern medicines in the colonies. Oriental medicines and curatives were widely popular in both central Asia and west Asia especially through the Arab Trade route towards Europe. But the crusades first and

the domination of the Portuguese in the high seas with the new colonial situations later, adversely affected the passage of medicines from countries like Netherlands towards their colonies. The expense for bringing such medicines all the way from Europe is unbearable for the colonies especially when these medicines were taken to Europe once from Malabar. Moreover since it consumes a lot of time for its easy passage, the quality and therapeutic value of such medicines will considerably decrease before it reaches to the destination. Such compulsions must have made Van Rheede to think over the production of medicine locally.

Meanwhile the news of a distilled oil made out of the wild cinnamon (Cinnamon Malabattrum) from Malabar using as an anointment in hospitals and caring centres for wounded soldiers was made an issue by his enemies which ultimately resulted in the prohibition of such activities of Van Rheede. Moreover, the appointment of one Italian Carmelite missionary Rev. Mathew, as an associate for preparatory works of "Hortus" also annoyed the Hollanders against their Commander in Cochin.

Van Rheede's collection of the plants are all from Malabar. Rheede's meticulous knowledge of the western ghats is evident from his topographical description that Malabar is rocky and uneven but with full of medicinal shrubs and herbs. His presentation was so scientific that each part of the plant with a leafy branch, flowers, fruits and roots are given with minute details. Much care has been taken to give details of all parts of a flower from the attractive petals to the fertilizing microspores of the Pollen-grain. The fruits and seeds are all shown fully opened for clear understanding of their inner parts with botanical descriptions. The nature like colour, odour and taste of each plant and creepers and their medicinal value are also given with minute observations.

In the collection of materials, Van Rheede also had had the rare privilege of getting the royal patronage from Kerala Varma the ruler of Cochin. Others who helped him are Appu Bhat, Vinayak Pandit and Ranga Bhat, all Konkani Brahmins of Cochin. In addition, Itty Achuthan, as mentioned earlier, was the only physician who has given a detailed sketch of the medicinal properties of the plants collected by the efforts of all, both indigenous and foreign ¹⁰. This has been examined in detail by scholars like Prof. Manilal, Suresh and Nicholson and several other researchers and their analysis and studies have brought "Hortus" more popular and debatable among a larger audience in recent years.

The study of Hortus Malabaricus also takes us to the understanding of the socio-cultural milieu that Kerala had in the 17th Century in the colonial context. The topographical situations of Kerala are discussed with its bio-medicinal diversity. It was an interim period when feudalism and traditional land holding system were showing a tendency of decline¹¹, but the colonial

system still searching to bloom with its estates and plantations. That means the whole mechanism of colonialism was changing and taking a new shape. The Dutch in Cochin also was also not free from such a transformation.

The regions from where medicinal plants usually collected were peculiar habitats like the traditional Kavus, snow scapes and glacial mountains. The adivasis and aboriginals of the region were highly instrumental to the formation of a work like this. We know that the custodians of such Kavus and the adivasis were well versed in the practice of indigenous medicine whose services definitely must have boosted the process of plant categorization and identification. These eco-friendly zones were highly congenial for the growth of such plants and herbs. Both Portuguese and the Dutch utilized the newly acquired knowledge from below which certainly has surpassed the test of time. Hospitals attached to Charitable centers like Sata Casa de Misericordia¹² instituted by the Portuguese also utilized such indigenous medicines for the treatment of the poor and the destitute. Though the motive to the formation of such centres was basically religious it is true that they became asylums of relief to the uncared and ignored in society to a considerable extent.

The Konkani Brahmins have migrated to Kerala coast particularly in towns like Tellicherry, Calicut and Cochin from their home country in the late medieval period and early modern period due to political pressures from the Gujarat and Maratha region. The occupation of the Portuguese in Goa intensified the situation. They have been persecuted in Cochin both by the ruling raja and by the Dutch. Their involvement in the capital market antagonised the Dutch while their wealth was a target of attack for the rulers like Sakthan Thampuran (1790-1805) compelling extraction of money and even forcible possession of the image and costly jewels of the deity of the Tirumala temple at Mattancherry belonging to them. Their contribution as a buffer community, between the colonial power and the indigenous ruler, acting in the socio-economic space is yet to be studied seriously wanting more research.

Notes and references :

- 1) They were proceeding from Surat to Calicut as per the suggestions of some Malabars (People of Malabar) But the Portuguese caught them, taken to Goa and Hanged. Konial Archief 980, 14th Feb 1619. The Hague Also Ann Bos Radwan. The Dutch in western India 1601-1632, Calcutta 1978 PP 22-24. She argues that the Dutch colonial policy is based on "Mutual accommodation"
- 2) Visscher, Letters from Malabar (Trans) Madras 1862, P.153
- 3) F.Bermier, Travels in the Mughal Empire (1656-68) Trans. Delhi 1968 PP 436-440

- 4) Dr.K.Ramachandran, History of Medicine Relating to Kidney and Disorders of the Urinary Tract, University of Madras, 1973, P.7
- 5) Ibid P.10
- 6) Pelsart. Jehangirs India Eng. Trans. W.H. Moreland Delhi 1972 P.48
- 7) Abul Fazl, Ain-i-Akbari, Ed. Trans. Blochman, Delhi, 1965.pp 68-80.
For more details, see Irfan Habib : The Agrarian System of Mughal India, Bombay,1963 Shirin Moosvi. Man and Nature of Mughal Era. Delhi 1993
- 8) Manucci. Storia do Mogor Vol.III (Trans)Calcutta 1966 P.176
- 9) Babar, Baburnama, Tr. (Beveridge) Delhi 1970 PP 503-514
- 10) Nicholson, Suresh and Manilal. An Interpretation of Van Rheede's Malabaricus, Kongisteen, 1988. Also see Manilal : Botany and History of Hortus Malabaricus Oxford IBH New Delhi 1980
- 11) K.K.N.Kurup : The beginning of colonial Agrarian System in South India PP2-3. Presidential Address (Modern India) Indian History Congress. Mysore 1993. Also see Kurup : Modern Kerala, Studies in Social and Agrarian Relations New Delhi.1998
- 12) Miseri Cordia literally means mercy or Charity. C.R. Boxer Considers Miseri Cordia as one of redeeming features of Portuguese imperialism in Asia, and one which had no parallel in other European Asiatic countries until modern times. See The Portuguese Seaborne Empire, 1415-1825. Penguin pp.55-58

(Dr. Varsha Kamat read out this paper as Prof. E. Ismail could not be present.)

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Session : 2

**Making of Hortus Indicus
Malabaricus : Konkani Role**

Chairperson : Dr. G. Nagendra Prabhu, Alappuzha (Kerala)

Resource Person : Shri. Payyanur Ramesh Pai, Ernakulam (Kerala)

Resource Person : Shri. N. Balakrishna Mallya, Kochi (Kerala)

Better Late than Never

- Dr. G. Nagendra Prabhu
Chairperson

I am extremely happy that this National Seminar on *Hortus Indicus Malabaricus* is organized by Anugraha Charitable Trust in association with Department of Archives and Archeology, Government of Goa, Goa Konkani Akademi and Konkani Language & Cultural Foundation World Konkani Centre. It is my privilege to participate in this unique venture as Chairman of one of the sessions.

Apart from other historical aspects, the 16th Century Dutch rule at Kochi, Kerala, the southern-most tip of the Indian sub-continent is remembered for the great initiative taken by the then Dutch Governor, Commodore Henrik Van Rheede in compiling a world acclaimed treatise on medicinal plants of Malabar named as '*Hortus Indicus Malabaricus*' (HIM). Historically, this may also be the first 'scientific collaboration' between Netherlands and India because it had all the patronage of the Dutch Government and Kings of then Kochi State. The project was a culmination of the managerial excellence of the Commodore who identified great Ayurvedic (Indian traditional healthcare system) Physicians, Appu Bhat, Ranga Bhat, Vinayak Pandit and Itty Achuthan to harness the native knowledge base of medicinal plants, set up a botanical garden at Fort Kochi and arranged to print a 12 volume treatise on copper plates in Latin at Amsterdam way back in 1678 to 1693. The three physicians belonged to the migrant Konkani community from Goa and the last one belonged to Kerala. Incidentally the very first block printing in two Indian languages, viz. Malayalam and Konkani, happened in the same compilation. The book even prompted Carl Linnaeus to compile the system of *Binomial Nomenclature* of plants in the later years. The University of Kerala had published the translations of this book in English and also Malayalam during 2003 and 2008 respectively, the translator being Prof. K.S.Manilal. A short description of the Book and its authors Appu Bhat, Ranga Bhat, Vinayak Pandit and Itty Achuthan is being taught in the Social Sciences Text Book in Kerala State Schools for the past few years. But unfortunately, the contributions of the three Konkani physicians have been neglected by the general public and even by our brethren themselves due to sheer ignorance.

This Seminar is a step in the right direction wherein experts present papers covering all aspects of *Hortus Malabaricus*. Furthermore, the role played by the Konkani Physicians is being highlighted and examined scientifically by a panel of experts from different walks of life. I would like to make a few suggestions for discussion and deliberations with the basic idea that this should act as a starting point for the revival of Konkani language and culture

in India. We should have a common front of all Konkani speaking people to protect ourselves from the onslaught of modern western culture.

- Undertake research work in different areas of *HIM*. We should explore areas where the Dutch Government or appropriate international agencies will be able to provide valuable help, such as access to the historical records, photographs or originals from the archives or museums etc. Further, areas of academic and research collaboration on "*Hortus*" can also be identified between the researchers of two countries interested in the project. A joint action plan involving the Netherlands, the State Governments of Kerala and Goa and NGOs who are working for the common cause will be effective in implementing the research projects.
- Conduct Popular Lecture Series in Schools, College, Universities, Ayurveda Colleges etc. about *HIM*. Aesthetically designed posters can be displayed at the venues and brochures about *HIM* and role of Konkanis can be distributed there besides other places like Temples, Libraries etc.
- Biannual seminars on *HIM* can be organized at different States as the one held in Goa. Next can be in Kerala, then Karnataka and later Maharashtra.
- A professionally designed website and a Digital Repository of known details and evidences, books, publications, photos, paintings etc about *HIM* & Konkani's in general, should be established.
- Recommend to CBSE, State Educational Boards, Universities, Ayurveda Colleges etc to include the study of *HIM* in their respective curricula.
- Folk songs, CDs, Cartoons etc to be produced in Konkani and other languages about Konkanis and *HIM*. Immediate steps to be taken to introduce the young generation of Konkanis about our culture, language, food habits etc through CDs, songs, poems, cartoons etc.
- To try and get recognition for the Trio in Government records and its various documents. The Governments should be approached to establish suitable monuments and make efforts to include a separate section about *HIM* in the State Museums.

I wish that that the deliberations during the Seminar and other initiatives will result in the recognition of our forefathers who translated their traditional wisdom into this historic book and made us all proud inheritors of a great tradition and lineage. As the saying goes, "it is never too late to learn" and "better late than never"!

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Hortus as Heritage Revisited

- Payyanur Ramesh Pai

We have gathered here to recognize and create an awareness on the contribution of Konkani in producing the monumental '*Hortus Indicus Malabaricus*'. The discussion triggers a primary inquiry into whether any significant contributions were made by Konkani towards this botanical encyclopedia. Then only we will be able to appreciate the role of Konkani in the making of this monumental botanical treatise.

Of late, there appears to be a tendency among the scholars to marginalize or belittle the contribution of Konkani Pandits towards *Hortus Malabaricus*. As Konkani form a community migrated from Goa into Kerala, some question the capabilities of these members belonging to this community in making such a voluminous work. Generally it is agreed that the large scale migration of Konkani from Goa started following the oppressive rule of Portuguese. After Alfonso Albuquerque conquered Goa in 1510, and the Inquisition court was established in 1560. Following this Konkani speaking communities fled Goa in order to protect their knowledge, life and practices. *Hortus Malabaricus*, having been prepared in 1675, though printed only in 1678, it happened about 100 years since the Konkani migrated to Kerala. Since the botanical treatise is based on plants in Malabar, how could these migrants acquire knowledge of medicinal plants to prepare such a huge work is what raises eyebrows among scholars. Such scholars fail to understand that 'Malabar' in those days extended the whole of west coast, and did not limit itself to the British ruled Malabar area. Besides, they fail to note the fact that even a century before *Hortus Malabaricus* another Botanical treatise was published from Goa – Authored by Garcia de Orta, in 1563. It was titled "Os Colóquios dos Simples e Drogas e Coisas Medicinais na India" (Colloquies of the simple, and Drugs and medicinal applications in India). Only after settling in Goa did Garcia de Orta come to know about the work of the Vaidyas, Hindu physicians, of which he was completely unaware. He was assisted in his work by his intelligent Konkani servant girl Antonia. Garcia could not have completed his work without the help of Vaidyas from the locality, who were none other than Konkani.

It is only logical that some of the migrated Konkani had acquired knowledge of a foreign language like Portuguese, besides mastery over Indian classical language of Sanskrit. It is well known that texts in Ayurveda, an Indian Science, are maintained in Sanskrit only. For those Vaidyas or practicing physicians, knowledge of Sanskrit is but inevitable, and therefore it will not be correct

to presume that the Goan Konkanis lacked knowledge of Ayurveda. Herbs and plants are main sources of medicines that are administered by Ayurvedic physicians. Dada Vaidya, a celebrated physician in Goa, stands an example, although he lived in 19th century.

In *Hortus Malabaricus* itself, the Dutch Commander Van Rheede talks about the Konkani Brahmins of Malabar, whom he had closely observed. He talks high about them, and lauds their mastery over different matters, including names of herbs. He was appreciative of the quality of their discussions and memory power, as they often quoted from scriptures and texts which they had learned. This is appearing in the third volume of *Hortus Malabaricus*.

One of the unique features of *Hortus Malabaricus* is that it contains the plant names in four different languages – Latin, Malayalam, Konkani and Arabic. Instead of Konkani, Hortus mentions “Lingua Bramanica Antiqua” meaning “The Ancient Language of the Brahmins” because for the foreigners it was predominantly used by the Brahmin community. Other than to mention the names of plants, we see that Konkani was also used in a testimonium provided by the three physicians, Ranga Bhat, Vinayak Pandit and Appu Bhat in the first volume of *Hortus Malabaricus*. Due to the term *Lingua Bramanica*, people conveniently misunderstood it to be Sanskrit, since Brahmins are known to possess knowledge of Sanskrit, rather than identifying it as Konkani, for almost two centuries together !

To me, the first researcher who identified the usage of Konkani in Hortus is J.Gerson Da Cunha, who was a member of the Royal Asiatic Society of Bombay. I quote from the very first page of his book titled “The Konkani Language and Literature” (Printed in 1881 at the Govt Central Press, Bombay) : “Some of the Konkani Brahmins are settled as far south as Cochin, where they speak and write in their idiom. A proof of this assertion, some two centuries old, may be found in a testimonial in this language, in Devanagari characters, published in Van Rheede’s *Hortus Indicus Malabaricus*, Amsterdam edition of 1678, above the signature of three learned Brahmins. It is also in this language that almost all the plants described in that work are named, although the author calls it *Lingua Bramanica*.”

Now the question arises how could Van Rheede include this Konkani testimonium without translating it into Latin ? Van Rheede was a shrewd Administrator, and he was quite serious about his project. He had deployed translators for this botanical work. Christian Herman de Donnep was the chief translator, whose Latin translation of the Konkani testimonium appears on its very next page. A person with knowledge of Konkani can easily make out that the Latin translation is very much defective.

After giving the names of the Trio, Donnep has added the following attestation to his translation before signing off : “Translated from the Brahman Language

(Konkani) into Portuguese by the undersigned : VINAYAK PANDIT And from Portuguese into Latin by me : CHRISTIAN HERMAN de DONEP State Civil Secretary, Cochin”

It appears like Donep was trying to get an anticipatory bail for himself ! Look at the way he explains the basis for translating the work into Latin. Donep means to say that the original testimonium in Konkani was first translated into Portuguese by Vinayak Pandit, one of its authors, and then only he translated it from Portuguese into Latin. That is to say, the defects are to be attributed to Vinayak Pandit ! To me it looks like an absurd argument, because if Vinayak Pandit knew Portuguese and translated the testimonium himself into Portuguese, then, being an author, it is totally unlikely that such errors can creep into his own translation.

- It is difficult to comprehend why the so called Portuguese translation of Vinayak Pandit was not added in Hortus. That would have made the Latin translation transparent and authentic. For mysterious reasons Donep chose to keep it in dark.
- Donep has used extraneous phrases like *Gymnosophists* and *Manhaninghattanam* in his translation. Whereas the Trio clearly say that they were three physicians (Vaidya), the translation *Gymnosophists* is incorrect.
- While the original testimonium says “*Aamgelyaa Vaidya Granthaachaa Nighantaa Pramaani*” the authors were unambiguous to mean ‘As per our medicinal texts and authoritative works’ whereas the translator brings up a *Manhaninghattanam* from nowhere !
- The Konkani testimonium says that the Trio worked on illustrations too, and Donep is silent about it in his translation.
- The Trio have also confirmed in the testimonium that they had deputed people to fetch the herbs and plants, from places far and wide, and also paid honorarium/rewards to those people. This aspect is noteworthy because they were familiar with the areas where the plants are available.
- Besides, they confirm that they have been visiting the plant collection daily, from dawn to dusk, observing and studying various aspects in different seasons and conditions, for two years’ time. Surprisingly none of these facts are reflected in the Latin translation.

With all due respects, I am aggrieved to note that the translator Donep has not done justice to his translation of the Konkani testimonium. Therefore, I feel the translation of Donep is only like a scrap piece, doing disservice rather than service. I call upon the scholastic community to take up further into the quality of the remaining translations as well, in *Hortus Malabaricus*, that are attributed to Donep.

Although it is highly commendable that the stupendous work like Hortus Malabaricus is translated into Malayalam and English, still, it is regrettably unfortunate that Dr. Manilal relied on some of the faulty versions of the content. Nor did his advisors or helpers in Latin seem to have taken care in verifying the correctness of the Konkani testimonium when the monumental project was undertaken. Konkani language speakers, scholars and enthusiasts are still living in the present day Malabar region, and anyone would have been happily assisting in the task. It is really surprising, and at the same time paining, as we fail to understand why the community was kept in dark when such a mammoth translation task was undertaken, which reportedly took almost 35 years' time to complete !

The pain further aggravates when one notices the way some writers and professors laud the role of Itty Achuthan blowing it up out of proportion, and belittling the contributions of the Konkani Trio. This is really an unhealthy trend. It could be that casteist considerations are taking priority over merits in the minds of such people. It could happen when someone is quoting or copying what another scholar stated in the past, without a proper study or analysis of the whole work. Rhetoric repetition can cause errors. While the original project was executed with religious harmony and tolerance how could the present day scholars become myopic by sidelining equal contributors. While the Dutch Governor Henric Van Rheede invited the Trio to collaborate in the project, he very well knew their capacities and competence.

Therefore, when I stand before you, I feel that the Trio can very well hold their heads in high esteem, truly figuring tall amidst our common heritage of traditional Ayurvedic knowledge. Their contributions truly make us proud as belonging to the Konkani community. Let me also point out here that we need to undertake extensive study and research into the biographical details of the Trio, besides exact places where they stayed in Cochin. And going forward, we need to take upon ourselves the task of creating awareness about their contributions to Hortus Malabaricus among students, teachers, botanists and readers as well.

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Searching through the Evidences of Testimonies

- *N.Balakrishna Mallya*

Salutations to all.

Before going deep into the subject of the role of Konkanis in the making of Hortus Malabaricus with your permission, let me begin my speech with its relevance in this life of modern age.

Introduction

We know that Hortus Indicus Malabaricus is a book in 12 volumes which contains thousands of years' vast knowledge of Indian herbal medicine (particularly of Malabar Coast), its power and its medicinal value, and this has been introduced to the world, paving the path to modern science. Though we were unaware of the book for more than 300 years, it is a matter of pride for us (Indians) that it planted the seed for the advancement of medical as well as scientific fields and their research.

Eventhough the scientific knowledge of India had been spread throughout the world by many means before also, it has not been mentioned from where the knowledge came and who were the actual contributors of the knowledge. There stands the relevance of this book - Hortus Malabaricus I assume that this is the first book which has mentions that the knowledge is Indian and the main contributors were Indians, revealing their names and enclosing their own handwritten testimonies. We can undoubtedly attribute to this collection of books the term encyclopaedia as it contains 12 volumes printed over a span of years from 1678 to 1693.

Shortly after the defeat of the Portuguese by the Dutch in the Mattancherry War of 1663, Hendrik Van Rheede was appointed as the Governor of Cochin. From his early age itself, he was very much fond of examining and studying the unknown world of nature, especially flora. When he had got the opportunity to visit India as an officer and afterwards when he became Governor of Cochin, he knew that the Portuguese had already published books on the flora and medicinal herbs of India. Out of this the main book is Colóquios dos simples e drogashe cousas medicinais da Índia by Garcia da Orta, published in 1563. So, as a Dutch Governor it had become a prestige issue for Van Rheede to publish a work that was more authentic and more amazing.

It was his long time dream to introduce new knowledge about plants and herbs to the western world (hemisphere) as a whole and to his motherland

particularly. Thus by understanding that this region named Malabar which had a span of 888 kms, spreading from Goa to Kanyakumari was very much suitable for this work, he commissioned the project without wasting much time.

Even though, hundreds of experts and specialists in various genres and from various parts of the world got together as per his order to enact and fulfill this venture, we get names of only 16 members from the group by searching through this massive collection of books. The book mentions only 4 persons as indigenous physicians from this group of botanists, physicians, engravers, painters and a translator. They are the now familiar names of the Konkani physician Trios - Apu Bhat, Ranga Bhat and Vinayaka Pandit, and the Malayali physician - Kollatt Itty Achuthan.

Travel through the Testimonies

When we are researching about the role of Konkanis in this work of a massive nature, first we have to travel through the testimonies written by the Konkani physician Trio, the Malayali vaidyan, and the testimony given by Emmanuel Carneiro, the official translator.

Konkani Testimony

It is clearly mentioned in the testimony given by the Konkani physician Trio on 18th/19th of April, 1675 that they were involved in this venture before two years itself. In the testimony they stated that they sent a person who knew plants, trees etc. to various villages, by paying coolie cash, brought the medicinal plants, fruits, flowers, seeds and all, noting their seasons and keeping them in order, and then drawing their pictures. After this, keeping medical documents as evidence and from personal experience they noted the value of those medicines, gave directions to the team and stood beside them for two years from morning to evening, put things in order, and made them error proof. It is as clear as day light. There is no reason to refer to them merely as persons who gave supplementary information on the subject, adding to the information given by Itty Achuthan, but they were the persons who worked hard from beginning to the end in this project. This is underlined in their statement.

The testimony of Itty Achuthan

In the meantime, in the handwritten testimony of Itty Achuthan in Kolezhuthu script written on 20th April, 1675, it is only stated that he came to the Fort of Cochin, as he had experience in dealing with the trees, creepers etc which are shown in the book, counter examined and checked with the books he already possessed and with his own experience, in each and every manner and style, their usage in treatments, systematically arranged them and gave this information to the official translator of the company - Emmanuel Carneiro. In this statement he only mentions that he came to the Fort where a book was being written with pictures of the plants, creepers, leaves, seeds and all and

सुसिद्धी गजि बाहन बाक द्दुद राक्षस सवत्सर वैत्र सुदृष्ट को
 त्री राज पाटणी वैसिके राग नृदृष्ट बावि नायक पंडित आरु नृदृष्ट को वैद्य
 तानि को विवा कुमदोर आदि कि फाट्टे त्या न निरोपान ह्या मल बा रे देश
 तु आविले ओषध मंत्र दस बालि मरुदर वर ओळखे त्या मनुष्याक मु
 स्मारे देसु ते ते ग्रावातु पेंदून निमि कोर वर आणून त्या त्या मरुदरे फस
 फल पान बीज समसा त्या या तुकु का वरि सपाद न तिती नि गरी ती त्या उप
 रात आभि आमगे ल्या वैद्य श्रुथा वानि चीरा प्रमणी त्या त्या ओषध बावे गुण
 बाळुतु मरान जो जोगुण ठाम का केले तो वा त्या आखदांची नाव पळे उतु
 आनि दानि वर्धे सका चि या जे अभिला गि रावू नृदृष्टि बुस पादून दिला ते ल
 दिक अशिष्ट गुण का नृदृष्टि गुण आभि आमरी ती ति सगळी कर्ण दिली
 ते सत्य क गुमानु रे जा इद द्य गु नो गर बाग नृदृष्टि वरु दिनी श्री

रमासदु

विनायक पंडित

आपु वीरेण

he checked the same with the book he possessed and with his earned knowledge. From this statement it is not clear when he joined the group and how much time he had taken on this venture. From this it is clear that work on a book containing pictures and information was already in progress there when Itty Achuthan came to the Fort.

When we go through the testimony given by the Konkani physician Trio we will understand that they did not seek help from anyone for

the work entrusted to them by Van Rheede and that they disbursed money among the people for collecting specimens of trees, leaves etc and supervised the entire work. Here, their position in the group as scholars and physicians is clearly visible. While in Itty Achuthan's handwritten testimony he mentions that he gave his information to Carneiro who was merely a translator of the Company only. It shows the difference in the positions acquired by the Konkani physician Trio and Itty Achuthan in the making of the book. This does not mean that the information given by Itty Achuthan is futile. By this, I only wish to object to the point raised that Itty Achuthan was the leader of the group. It also seems as if Carneiro was the main head behind the project by referring to him and giving him more relevance in Itty Achuthan's testimony. I think that is why the name of Carneiro is missing in the testimony of the Konkani physician Trio. If anyone says that the role of the Konkani trio was very little and only supplementary and that is why their names are not mentioned in the testimonies of Carneiro and Itty Achuthan then we should also look into the testimony given by Konkani physicians in which they also did not mention names other than their own and that of the Governor Van Rheede.

Importance of the testimonies in Hortus Malabaricus

Now we have to look into the remarks and findings given by Van Rheede - the then Dutch Governor of Cochin by whose command the work was undertaken, Fr. Matthews - the Carmelite who helped him, John Caesarius - who translated the book in to Latin, Herman Donep - the then Civil Secretary of Cochin. Their statements are all in Latin only. I wonder what would have been the consequences if the testimonies of Carneiro and the indigenous physicians were published only in Latin?

We are able to unfold many truths before the world only because of these handwritten testimonies signed by the physician and the translator depicting their acts in the making of the work. If this is not the case, then just as

on Itty Achuthan to use Aryezhuthu script instead of Kolezhuthu script, first, one should find who restricted him to write in Kolezhuthu script in his own handwriting in the illustrations when most of all the records of that age are in Kolezhuthu script. Here, we should imagine the consequence of what would have happened if Carneiro had written in Kolezhuthu script instead, and Itty Achuthan written in Aryezhuthu script?

Carneiro selected Aryezhuthu script which was usually not used widely by the common as well as educated people of that time. It is not essential to mention here his knowledge of Malayalam and his using of the Aryezhuthu script because of his experience as the official translator of Portuguese with the various rulers of Kerala before the arrival of Dutch. But when Van Rhee de himself, Caesarius, Father Matthews and other prominent members of the group had no objection in printing their statements in Latin, what was the reason behind the compulsions of Carneiro who had the duty of collecting information from the indigenous physicians and working as only a translator, to include his writing in Malayalam. What compelled him to select the Aryezhuthu script is also to be scrutinized and this matter to be enquired. At that time Kolezhuthu script was very common so, it is not to be say that Carneiro was not acquainted with that script. Then why had he written his testimony in Aryezhuthu script? Had he written in Aryezhuthu script to show himself as more efficient and better educated than Itty Achuthan?

If both have used the same Aryezhuthu script then there would be a doubt about who had written Malayalam in the pages of illustrations. Now it is clear that the Malayalam writings in the illustrations are only of Carneiro. Whichever may be the script used to represent Malayalam, I do not think, Van Rhee de would have had any objection. Then we should think about who gained by including Aryezhuthu script in the book Hortus Malabaricus. Then we will understand that all fingers point towards Emmanuel Carneiro.

To ascertain the fact, let us look into the reference to Itty Achuthan by Carneiro in his testimony.

Carneiro states that he was a Malayali physician named Koladan born from Chego race and brought up from Karappuram near Cherthala and he had written a famous book. But the name of that book is not mentioned anywhere by Carneiro or Itty Achuthan. But in recent days there is an attempt going on to establish that the basic book behind Hortus Malabaricus was a book naming Keralaaraamam which is believed to have been written by Itty Achuthan. But here, we have to ascertain that the Konkani physician Trio have also said that they had their own books for reference and when they gathered specimens from various sources they checked them with these books taken as evidence. Without mentioning this, it will be said that this belief that such a book as Keralaaraamam existed is merely a partial statement.

When we get information about the Physician Trio and Itty Achuthan from the

To understand the fact, we have to know the events that took place before the making of Hortus Malabaricus Van Rheede along with Fr. Matthews first met these Konkani physician Trio and invited them to participate in the venture. It is said that unclear and imperfect paintings made by Fr. Matthews did not impress Van Rheede and this was the reason behind it. At that time Fr. Matthews was writing another book of the same genre called Viridarium Orientale.

‘Apparently Van Reede had in the first instance requested the help of these Brahmans in order to complete the drawings of Father Matthew by supplying specimens of the incompletely depicted plants and continued to rely on their

- Marian Fournier^{††}

Van Rheede in his statement mentions that he appointed three to four painters (Heniger 1980) to draw the specimen of the plants, roots and leaves etc. We can find the names of two artists depicted in the pictorial pages of Hortus Malabaricus They are : Antoni Jacobi Goedkint and B. Stoopendael.

[illegible]

John C. Carr

It shows Chithaarilee at the right most part of the 6th line in the testimony. Chithaarap means drawing pictures, to paint or illustrate. चिथारिणी Then putting Chithaarilee we should assume that they have also participated in drawing the pictures for the book.

By this, the Konkani physician Trio not only mentioned their role in the making of the book clearly in the testimony but also confirmed their act of illustration which is not mentioned in the testimony of Carneiro. In the testimony of Itty Achuthan it is stated that the pictures were already done before his arrival at the Fort.

When the abovementioned European Artists had written their names in the first pictorial page in the first Volume of Hortus Malabaricus the physician Trio mentioned it by giving their testimony. So, we can say that the Trio were the other artists beside the above mentioned European artists.

Days when testimonies were written

Now someone would say that it is insignificant to verify the days of testimonies at this stage. But it is very much important to know the actual background of the persons present at that time who came from various social circumstances and who were possessing different social status.

The date of the writing in the testimony given by the Konkani physician Trio indicates it as Shalivahana Saka Rakshasa Samvatsar Chaitra Bahula. If we calculate this date of the Indian Calendar followed by the Konkanis at that period we will come to the conclusion that the date was between 18th and 19th April, 1675. (See my book Hortus Malabaricus and the Contribution of Konkanis - Page 26). There is an argument that Vinayak Pandit, from among the physician Trio, had fluency in Portuguese language and so he translated their testimony into Portuguese. But the actual fact is that the content and meaning of the translation is not same as the original testimony which they had given. Not only that, in the Konkani testimony the date is given perfectly and according to Indian Calendar system of Saka Era.

सालिवाहनासक राक्षससंवत्सर चैत्र बहल १५

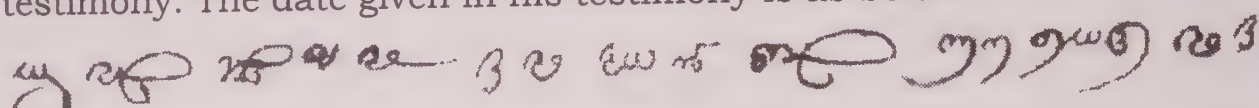
On the other hand, Emmanuel Carneiro who was working as translator for the Portuguese as well as with the Dutch, followed the European calendar and recorded the date as April 19, 1675 in his testimony written in Aryezhuthu script. It is obvious to select the western calendar for an educated person like him who had foreign relations even if he was born and brought up in Kerala.

19 \v (1000) (600) (70) (5)*

April month 19th (1000) (600) (70) (5)

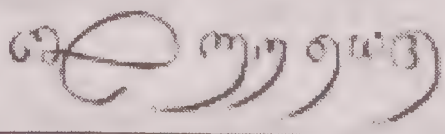
In these above mentioned testimonies taken as example, one is given mutually by the physician Trio establishing their knowledge of the Indian calendar system as well as their knowledge about Indian medicinal plants, seeds etc and Carneiro, who was a link between the foreign nations and regional kingdoms of this land shows his knowledge of the western calendar.

Now let us check the testimony given by Itty Achuthan in Kolezhuthu script. He was a physician who was born and brought up in an extreme countryside of Kerala and a man with traditional knowledge about medicines of all kinds acquired by his unending relations with the common people of this part, and who had chosen Kolezhuthu script instead of Aryezhuthu script for his testimony. The date given in his testimony is as below :


 ആ പി രി ല മാ ത മ 20 ന് (1000) (600) (70) (5) മ ത

April month 20th (1000) (600) (70) (5)

It is an unimaginable and strange thing that Itty Achuthan who was a down to earth man having immense traditional knowledge in the system of medicine of Kerala that prevailed in that time, missed writing down the date by following the Malayalam Calendar system. Why did this happen? The question has a point because this occurred about more than 335 years ago and not in the previous century. Implementation of the western type of educational system and the usage of the western calendar by the masses happened only in the British rule in this part of Kerala. Even the Konkani physician Trio who were representing the Konkani community which was then prominent in internal as well as external trade of many kinds and had relations with foreigners in many sectors, had written the date in the testimony in the traditional way following the Indian system of Calendar. Then why did Itty Achuthan choose the European system of calendars to show the date of the writing of his testimony? He might have used Malayalam Era - Kollavarsham or a system which was prevalent at that time in the region of Cochin - Puthuvaippu Era and should have written Kollavarsham (12 Medam, 850) or Puthuvaippu (12 Medam, 334).

	
1675 in the testimony of Carneiro	1675 in the testimony of Itty Achuthan

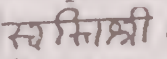
Here we should take note that even Maharaja Swathi Thirunal of Travancore (1813 - 1846) who had contributed much in popularizing the European system of education in Kerala, used Kollavarsham in Royal orders and letters.

If we assume that Itty Achuthan was well versed in the Portuguese language

and knew about the western calendar then a question will arise as to why Carneiro translated the testimony of Itty Achuthan.

Signature

Signature is an important part of a testimony. In the testimony of Itty Achuthan which is written in Kolezhuthu starts by introducing himself as a 'Malayaam Vaidyan' (Malabari physician) only and signed as Kollatt Vaidyan (a Physician from the family of Kolattu). If one goes through that document one could not reach the fact that it was written and signed by the same Itty Achuthan which we are discussing now everywhere. Then a question will arise that who had prompted him not to write his  name - Itty Achuthan - in the testimony and why? Some argue that a palm leaf like seal was his unique signature and say that it is the influence of Buddhism in the region of Kadakarappalli at that time.*

To know more about the truthfulness of the fact, we have to scrutinize the testimony written by Konkani Physicians. They used Shri in two places in their testimonies - in the beginning of the statement Swasti Shri  and at the end of their document by Shri  - which could be clearly seen. But in the testimony written by so called Itty Achuthan in Kolezhuthu, at the first glance we cannot see a single Shri. If we get a closer look at the signature we will be amazed at the fact that how the alphabet 'a' of the Aryezhuthu script came in the testimony which was fully written in the Kolezhuthu? And what is the meaning behind the 'a' and the surrounded circle?

Was it an unsuccessful task of writing and including Shri in the testimony? Would the person who had written the document was of the thought that it would be better to include Shri to present it as indigenous as the document produced by the Konkani physician Trio? If he desired to include Shri in the testimony, he would have used  (chiri)** instead. Because there is no alphabet 'a' or 'œa' in the Kolezhuthu. If it is not the actual fact then what is the connection between the sign and the Kolattu vaidyan family?

When considering the fact that there is no name of Itty Achuthan anywhere in the testimony written in Kolezhuthu and the signature put in that document does not clearly reveal the identity of the person who signed it, we have to conclude that there is a confusion about the person who had written the testimony. If Itty Achuthan was a scholar in many languages, as claimed in a book Hortusum Itty Achuthanum; Sathyavum-Mithyayum then this confusion would not have happened.

If it was not written by Itty Achuthan then I doubt that the person who wrote the document was familiar with both the scripts Kolezhuthu and Aryezhuthu. Then we will reach to the conclusion that the person was not other than Emmanuel Carneiro, the official translator of the Company.

Conclusion

From all the above facts we can reach the following conclusions:

- Emmanuel Carneiro, the official translator of the company had good knowledge of both the Kolezhuthu script and Aryezhuthu script of Malayalam.
- Carneiro is the only person who has written the names of plants in Malayalam in the pictorial pages of the book.
- The date given by Itty Achuthan following the western calendar system makes it doubtful as to the trustworthiness of the testimony.
- The similarity in writing the date shown in the testimony given by Itty Achuthan and Emmanuel Carneiro makes it difficult to ascertain the identity of the writer.
- If we assume that Emmanuel Carneiro who knew both the scripts had written both the testimonies then what was the script used by Itty Achuthan to write down his famous book which has been mentioned by Carneiro. Did Itty Achuthan only sign the testimony without understanding what the contents of the testimony were?
- The said signature of Itty Achuthan also raises many doubts which should be subjected to more studies.

So, my conclusion is that there is need to throw more light to avoid the doubtfulness of the testimonies given by Carneiro and Itty Achuthan as compared to the testimony given by Konkani physicians, which is as clear as crystal, giving the true picture of Konkani's role in the making of Hortus Indicus Malabaricus.

Thank you all for hearing me.

References : -

† Hendrik Adriaan Van Reed Tot Drakestein 1636-1691 and Hortus Malabaricus - J. Heniger - Page 105, Para 3, Chapter 7 - "Vridarium Orientale of Matthew of St. Joseph"

†† Enterprise in botany : Van Reede and his Hortus Malabaricus - Part-IMARIAN FOURNIER (Archives of Natural History (1987) 14 (2) : Page 123)

* Keralathile Pracheenalipi Mathrukakal- Dr. N Sam - Kerala State Archives 2006

° Hortusum Itty Achutanum ; Sathyavum-Mithyayum (2011) - A.N.Chidambaran - Page 118 Para 2

** Kerala State Archives, Thiruvananthapuram - Churana No. 1719, Ola No. 113

° Hortusum Itty Achutanum : Sathyavum-Mithyayum - (2011) - A.N.Chidambaran - Page 145 Para 2



Session : 3

**Illustrations in Hortus
Indicus Malabaricus**

Chairperson : Shri. Cartoonist Balachandran, Ernakulam (Kerala)

Resource Person : Shri. C. K. Viswanathan, Alappuzha (Kerala)

Resource Person : Shri. Dinesh R. Shenoy, Kochi (Kerala)

Illustrations in Hortus Malabaricus

- *Cartoonist Balachandran*
Chairperson

Glad that the organisers have chosen a unique topic for this session of the National Seminar. Indeed much can be derived and learnt from the hundreds of plant pictures that the Hortus Malabaricus carries. The book contains very peculiar illustrations that clearly show the keen observations and deft drawing skills that take the book itself to a high pedestal. The drawings were all engravings done on copper plates. The technology employed in those days is called etching, and only experts could accomplish such sophisticated tasks. No wonder that the book was produced in Amsterdam, since in those days printing technology had not become popular in India.

Accurate lines as well as absolute scales and ratios used in the drawings make them simply beautiful. For a student of botany the pictures give a vivid idea about the particular plant. The Dutch illustrators who made their contributions in Hortus Malabaricus seem to be well experienced in their art and techniques. It is a known fact that Fr. Matheus commenced a botanical project and had sought the help of the three Konkani Brahmins much before the work of Hortus Malabaricus. While his project was discontinued halfway through, at the behest of Commander Van Rheede without any malice, the pictures were definitely precursors to those in Hortus Malabaricus. The Konkani Brahmins do mention 'Chithaarili' in their Testimony, indicating their owning up the illustrations in the work.

Accordingly the local skills as well as foreign skills were pooled together to make the work a comprehensive one. Multiple pictures of the same species of plant find place in the book to indicate the different parts of a plant, like flower, seed, trunk, branch, leaf etc. which is helpful for a stranger to identify the particular plant and understand the narration given in the running text.

I think it is worthwhile to make a mention of different studies that were undertaken about Hortus Malabaricus even recently.

"Arnold Syen (1640-1678) is the first, but also the least known commentator of Hortus Malabaricus. Following his return to Amsterdam in 1678 Van Reede had some time to devote to his manuscript before setting off again for Asia in 1684. It was during this time that Van Reede worked with editors such as Arnold Syen (1640-1678), Professor of Botany at the University of Leiden, Johannes Munnicks (1652-1711),

Professor of Botany at the University of Utrecht, Jan Commelin (1629-1692) at Amsterdam, and his publishers Johannes van Someren (1634-1706) and Jan van Dyck (fl. 1678) to produce the multi-volume *Hortus Indicus Malabaricus* (1693-1703) which is worth collecting. In 1986 J. Heniger wrote a book "Hendrik Adriaan Van Reed Tot Drakestein 1636-1691 and *Hortus Malabaricus*" which became a reference work for botanists studying the flora of South Asia.

The International Institute for Asian Studies (IIAS), established in 1993, a research and exchange platform based in Leiden, the Netherlands conducted a seminar on *Hortus Malabaricus* in 2012 in which three distinguished speakers discussed the present-day value of this stunning and insightful 12-volume work, printed in Amsterdam between 1678-1693.

The former director of the Dutch National Herbarium, Prof. Pieter Baas, in his inspiring bio-historical lecture about the context and history of *Hortus Malabaricus* said :- "Without doubt, Van Rheedee was the driving force behind *Hortus Malabaricus*, but the creation of the book was the result of true teamwork."

Renée Ridgway, a visual artist based in Amsterdam, spoke about her interest in the subject on the basis of two exhibitions in the Netherlands and India, and also introduced a new online community platform (hortusmalabaricus.net). She said:- "I decided to explore Hendrik Van Rheedee's motivation that drove him to produce such a book. Together with documentary filmmaker Rick van Amersfoort I interviewed experts and local people about their opinions, anecdotes and documents."

Dr. Maarten Bode, medical anthropologist at the University of Amsterdam and the Institute for Ayurveda and Integrative Medicine in Bangalore, India, spoke. To show the contemporary relevance of the *Hortus Malabaricus*, Bode focused on amla or amalaki (*Emblica officinalis*, *Phyllanthus emblica*). In part I of the *Hortus Malabaricus* this Indian gooseberry is portrayed and described on pp. 69-70. The berry is also the main ingredient of Chyawanprash, India's best-selling Ayurvedic health product. "

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Drawings in Hortus Indicus Malabaricus

- C. K. Viswanathan

India's traditional art forms have their own lexicon of symbols associated with harvest and prosperity. Traditional paintings and sculptures by masters showcase Indian folk and tribal art forms, including Gond, Phad, Pichwai and Mithila.

Orissa Pattachitra works painted on silk, the interpretations of the Hanuman Chalisa, we have a huge wealth of traditional art, which is still being created by traditional artists. It is time to create awareness about these intricate art forms, which are part of our country's heritage and legacy. Blessings for auspiciousness and prosperity form a key motive in traditional Indian folk and tribal art forms. Indian traditional art forms elevate the viewer from a spectator to someone who seeks the higher aspect in life, divine intervention or blessings for a better, more prosperous life.

The concept of bringing auspiciousness into one's daily life through prayer, fasting, meditation or 'Pooja' is interpreted in different ways by different art forms in the country.

Drawings for Hortus Indicus Malabaricus made great change in the vision of the art segment in India from 17th century. Hortus Indicus Malabaricus is a 17th century botanical work, illustrating around 700 indigenous plants in the Malabar region of India that explains their medicinal properties, with captions in 4 different languages.

Hortus Indicus Malabaricus was produced on cotton rag paper with an acid free base specially designed to showcase and preserve the bright, vibrant colours of the artwork.

This platform will explore the creation of the Hortus Malabaricus and its historical, artistic, medicinal, botanical, linguistic political importance. What makes this 17th century curio so special is that it is perhaps the first document archiving the first East-West collaboration along with its manifold functions : an illustrated botanical garden, a taxonomy of named plants, a medicinal bible, a translator's dictionary, or to some an object d'art.

The three dimension effect and perspective of vision in art started from the Hortus Malabaricus drawings. It was influenced the Mughal paintings. From the rock period the art going directly to the human life is the significance of Mughal art.

Mughal paintings immediately took a much greater interest in realistic

portraiture that was typical of Persian miniatures. Animals and plants were also more realistically shown. Although many classic works of Persian literature continued to be illustrated, as well as Indian works, the taste of the Mughal emperors for writing memoirs or diaries, begun by Babur, provided some of the most lavishly decorated texts, such as the *Badshahnama* genre of official histories. Subjects are rich in variety and include portraits, events and scenes from court life, wild life and hunting scenes.

But as this art form had gathered momentum and had a number of patrons, Mughal paintings continued to survive, but the decline had set in. Some sources however note that a few of the best Mughal paintings were made for Aurangzeb, speculating that the path that he was about to close the workshops and thus exceeded themselves in his behalf. A brief revival was noticed during the reign of Muhammad Shah 'Rangeela' (1719–48), but by the time of Shah Alam II (1759–1806), the art of Mughal painting had lost its glory. By that time, other schools of Indian painting had developed Mughal-style miniature paintings are still being created today by a small number of artists in Rajasthan concentrated mainly in Jaipur. Although many of these miniatures are skilful copies of the originals, some artists have produced modern works using classic methods with, at times, remarkable artistic effect.

The 19th century saw introduction of art schools along Western lines, leading to modern Indian painting, which is increasingly returning to its Indian routes.

Indian paintings provide an aesthetic continuum that extends from the early civilization to the present day. From being essentially religious in purpose in the beginning, Indian painting has evolved over the years to become a fusion of various cultures and traditions. Mughal painting is a particular style of Indian painting, generally confined to illustrations on the book and done in miniatures, and which emerged, developed and took shape during the period of the Mughal Empire 16th -19th centuries).

Mughal paintings were a unique blend of Indian, Persian and Islamic styles. Because the Mughal kings wanted visual records of their deeds as hunters and conquerors, their artists accompanied them on military expeditions or missions of state, or recorded their prowess as animal slayers, or depicted them in the great dynastic ceremonies of marriages.

The Bengal school arose as an avant garde and nationalist movement reacting against the academic art styles previously promoted in India, both by Indian artists such as Ravi Varma and in British art schools. Following the widespread influence of Indian spiritual ideas in the West, the British art teacher Ernest Binfield Havel attempted to reform the teaching methods at the Calcutta School of Art by encouraging students to imitate Mughal miniatures. This caused immense controversy, leading to a strike by students and complaints from the local press, including from nationalists who considered it to be a

retrogressive move. Havel was supported by the artist Abanindranath Tagore, a nephew of the poet Rabindranath Tagore. Tagore painted a number of works influenced by Mughal art, a style that he and Havel believed to be expressive of India's distinct spiritual qualities, as opposed to the "materialism" of the West. Abanindranath Tagore's best-known painting, Bharat Mata (Mother India), depicted a young woman, portrayed with four arms in the manner of Hindu deities, holding objects symbolic of India's national aspirations. Tagore later attempted to develop links with Far-Eastern artists as part of an aspiration to construct a pan-Asian model of art. Those associated with this Indo-Far Eastern model included Nandalal Bose, Benode Behari Mukherjee, Vinayak Shivaram Masoji, B.C. Sanyal, Beohar Rammanohar Sinha, and subsequently their students A. Ramachandran, Tan Yuan Chameli, and a few others.

The Bengal school's influence on Indian art scene gradually started alleviating with the spread of modernist ideas post-independence. K. G. Subramanyan's role in this movement is significant.

During the colonial era, Western influences started to make an impact on Indian art. Some artists developed a style that used Western ideas of composition, perspective and realism to illustrate Indian themes. Others, like Jamini Roy, consciously drew inspiration from folk art. Bharti Dayal has chosen to handle the traditional Mithila Painting in most contemporary way and uses both realism as well abstractionism in her work with a lot of fantasy mixed in to both. Her work has an impeccable sense of balance, harmony and grace.

Interior designing become more popular now in India. Custom framing for traditional prints, giclee prints and museum wrap canvas, using your design choices of wood frames, mats decorative corner cuts and glass, it can create the framed Hortus Malabaricus. With a broad selection of wood frames, acid free mats and decorative corners, experience seems infinite for design possibilities. Framed Hortus Malabaricus prints and giclees leaves are more attractive and it has demand in art world now.

Hortus Malabaricus would be an excellent addition to the Decorative art enthusiast's home or office decoration. Large selection of Decorative prints satisfying art shopping experience. Gallery wrap or Museum wrap is the perfect presentation for Hortus Malabaricus, and an attractive option for displaying the works in Indian homes.

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Role of Konkanis in the Pictorial Documentation of *Hortus Indicus Malabaricus*

- Dinesh R. Shenoy

I consider this as one of the luckiest moments in my life to address honourable people like you. Perhaps I got this privilege to stand in front of you because of two things. First, I published two research books of *Hortus Malabaricus* and *the Contribution of Konkanis* by Shri. N Balakrishna Mallya, who is a writer, poet and artist. Second, I have completed pictorial documentations of over 400 heritage monuments all over Kerala State. Some of my documented images are displayed here, which you may go through.

Some years back, I got some commission work from Centre for Heritage Studies under the Cultural Department of Govt of Kerala. While awarding the documentation assignment to draw pictures of the Dutch monument in Kochi, the then Director General of Centre for Heritage Studies, Dr. (Prof.) K.K.N. Kurup who is a Former Vice Chancellor of Calicut University and a leading historian, advised me that I should not miss out David Hall from my list. I was surprised when Director told specifically about David Hall. Dr. Kurup advised me to collect maximum details regarding this site and initiate a study of it. When I heard this my surprise was doubled. I am staying in Mattancherry just one kilometer away from this tiny monument which Dr. Kurup pointed out. When I went to David Hall for the pictorial documentation, I could collect some of the details which created some positive impact on my life. I would like to share my experience with all of you.

I found that the Konkani speaking community which I belong to (Gowda Saraswath Brahmin) is connected with this small heritage monument. It is said that Hendrik Van Rheede (1636 - 1691), the Dutch Governor of Cochin used the place now called David Hall for his dream project. He used the same place for discussions on the details of medicinal plants with Konkani Ayurvedic physicians Aapu Bhat, Ranga Bhat, Vinayak Pandit and a Malayali physician named Itty Achuthan. That means our Konkani physicians spent their valuable time and energy while working for documentation of *Hortus Indicus Malabaricus* in David Hall. This is a prestigious documentation of medicinal herbs and plants by Konkanis.

For your information, the David Hall which we see now was renovated in 1695. If you go through *Hortus Indicus Malabaricus* you will find that each and every minor and major details of herbal plants of Malabar region is described therein. Konkanis who travelled all over the Malabar region were very much familiar to these plants. By just going through the description or the details we won't be able to visualize the plants or we won't be able to identify a plant from a



group. Since this was a dream project of Dutch Governor Van Rheede he wanted everything in a classic way. For that, he decided to document even the minute details in pictorial form also.

First he commissioned the work to Father Matthews, who was a Carmelite and also an artist. Father Matthews had made

several drawings while he was travelling. While reviewing the drawings of Father Matthews, Governor Rheede did not feel much happy as they did not perfectly match with his concepts and requirements. Thereafter Van Rheede commenced a good search to find out artists through his contacts and command areas. Finally he selected two artists from Europe and rest from here in India.

If you go back through the history of art 300 or 400 years ago, you will observe that our Indian artists used their talents for traditional wall paintings and ritual art forms. Artists during those days did not practise art for any other purposes. So it must have been a very difficult task for Van Rheede to find out the right profile of an artist for this project. So, he selected two major artists *Antoni Jacobi Goedkint*, a botanical artist and *B. Stoopendaal*, a Dutch engraver, and arranged Konkani physicians to help and guide them for the detailing of plants, fruits etc.

The signatures of these two European artists are clearly found below the drawings on the first pictorial page itself in the first volume of *Hortus Indicus Malabaricus*.



Konkani physicians gave their expert descriptions on plants, herbs etc. to *Antoni Jacobi Goedkint* which would help in his detailed drawing. Soon after *Antoni Jacobi Goedkint* completed the drawings, *Stoopendael* transferred the same into Copper plates by engraving. That was Golden era of Engraving in Netherlands. And *Stoopendael* was one of the brightest talented students of *Rambrandt van Rijn* who is well known as master in this art form even today.

The works done by *Antoni Jacobi Goedkint* and *Stoopendael* with the help and guidance of Konkani physicians resulted in excellent appearance and Governor Rhee de was very happy with their work. They made 791 illustrations of 742 plants which were included along with the descriptions of the herbal plants mentioned through the 12 volumes. When the pictorial documentation also added to the descriptions, it became very informative for the readers and students of botany who go through the voluminous work. This is the importance of pictorial documentation of an object.

As an artist, I have been doing pictorial documentation of various heritage structures and monuments for the last twelve years. Such documentations can help future generation to understand our culture and life style of the older generation.

Thanks for inviting and giving me opportunity to attend this National Seminar on Hortus Indicus Malabaricus organized by Goa Konkani Akademi in association with Directorate of Archives & Archaeology - Govt. of Goa, Anugraha Charitable Trust - Ernakulam and Konkani Language and Cultural Foundation - Mangalore.

Thanks to all.





Album Section



Frontispiece of the botanical treatise *Hortus Malabaricus*



Portrait of Henric Van Rheede as appearing in
Hortus Malabaricus (Vol.1)



A sample picture from *Hortus Malabaricus*, spread over two folio size pages

Arealu. Lat.

അറലു *Mal.*

أرج الخ *Arab.*

അറലു *bram.*

Tjakamaram, Lat. Pisau.

ട്യാകാമരാം *Mal.*

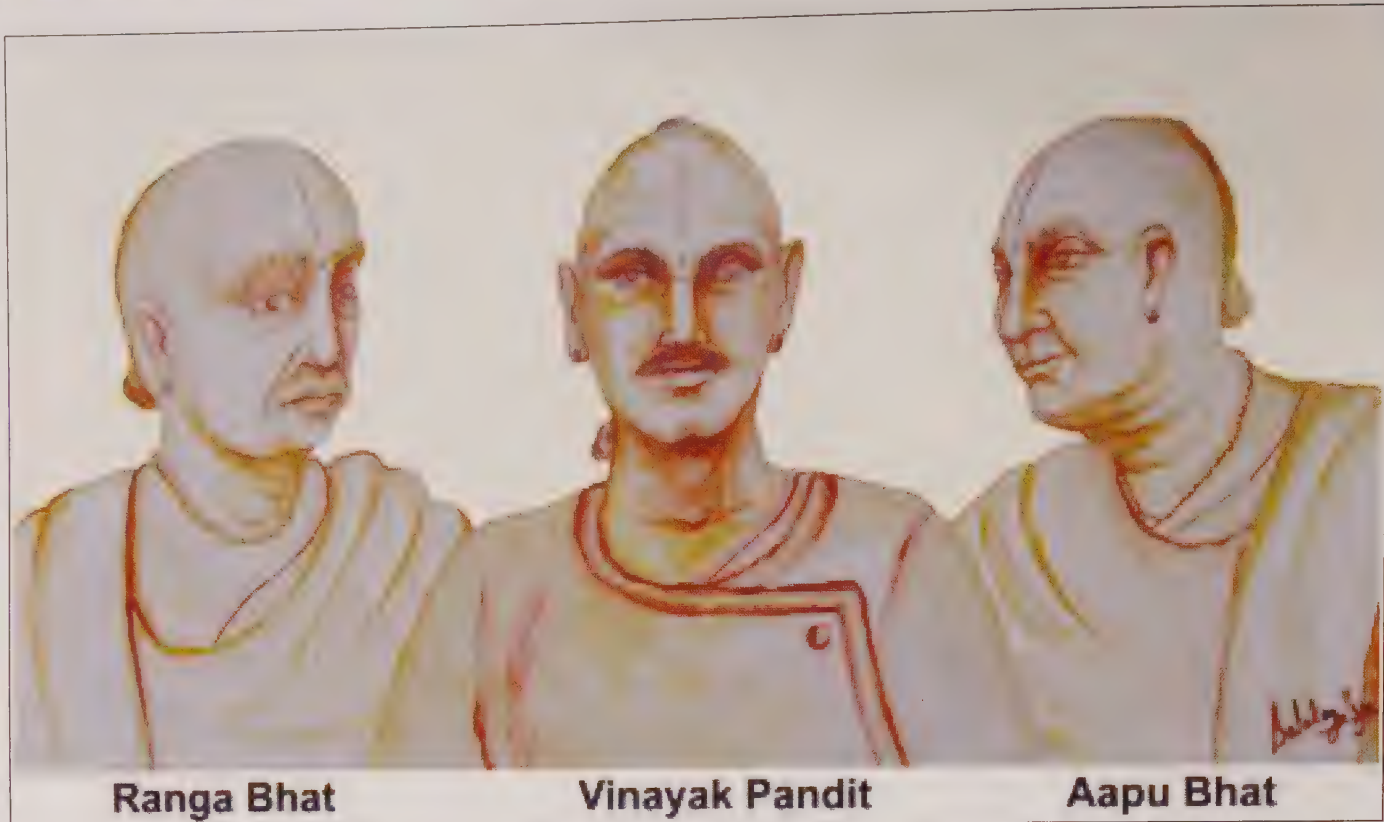
Ponoffon അറലു *bram.*

أرج الخ *Arab.*



'Commodore Odatha' or Odathapadi, (Malayalam version for Hortha) in Fort Kochi, is the area where the garden of medicinal plants situated. One can see that the vestiges of the wall still remain. The Vaidyas walked through this gate into the garden to study the plants and herbs from dawn to dusk for over two years.

Samples of plant names in *Hortus Malabaricus* – Vol. 1 Page 092 & Vol.3 Page 067



Ranga Bhat

Vinayak Pandit

Aapu Bhat

**An artist's impression of the Konkani Trio –
Picture courtesy : N.Balakrishna Mallya**



**Full set of original Hortus Indicus Malabaricus in Latin, treasured
in the Avittom Tirunal Library, Thiruvananthapuram**

H O C E S T.

AB anno millesimo quingentesimo nonagesimo septimo dicto à Bramanus *Palvanapaco* (qui apud nos est annus 1674:) usque ad decimum Aprilis anni dicti *Requeças* (qui apud nos est Annus 1675.) Ego RANGA BOTTO, VINAIQUE PANDITO & APU BOTTO, omnes tres de Natione & Religione Bramanas & Gymnolophustæ antiqui in districtu *Cochinensi* per mandatum Nobilis D. HENRICI à RHEEDE, Commendatoris terrarum Malabaricarum & Civitatis *Cochinensis*, curavimus per servos nostros qui notitiam arborum, plantarum, herbarum & convolvulorum habebant, eas ex terra Malabarica cum suis floribus, fructibus & seminibus ad Civitatem prædictam, ut delinearentur & describerentur, adferri, quarum nomina scripta sunt in libro nostro vocato *Manhattanam*, in quo etiam continentur virtutes & vires earum Medicinales, & præter hæc eis addidimus quod diuturna nostra experientia & magno labore ac sudore de his didicimus & observavimus, & ut hic liber perficeretur, laboravimus per spatium duorum ferme annorum, ita ut omnis & quilibet, qui eum lecturus & visurus est, ei possit adhibere fidem quam ipse fuisset daturus, si res in ea scriptas ipsemet fuisset expertus, juramus itaque secundum consuetudinem nostram, quod omne in eo contentum verum sit: in cuius rei fidem fecimus præsentem chartam quas propriis manibus nostris subscripsimus. Datam in Civitate *Cochinensi* vigesimo die Aprilis anni millesimi sexcentissimi septuagesimi quinti.

RANGA-BOTTO, VINAIQUE PANDITO,
A P U B O T T O.

Translatum ex lingua Bramanum per subscriptum

VINAIQUE PANDITO

*in linguam Lusitanicam, & ex lingua Lusitanica
in Latinam per me*

CHRISTIANUM HERMAN & DONEP,
Secretarium Civilem Civitatis *Cochinensis*.

This is the faulty Latin translation of the Konkani Testimonial, which Donep claims to have rendered from Portuguese, reportedly translated into Portuguese by Vinayak Pandit



Shri. Wilfred Mesquita speaking at the Inaugural session.



Shri. Damodar Mauzo speaking during one of the sessions.



Shri. V. V. Bhat Speaking at the Inaugural Session.



**Dr. M. S. Kamath, Dr. K. Madhusudhanan (Chair) and
Dr. V. Rajeev Shenoy**



Dr. Jayanti Naik, Prof. Bhushan Bhawe, Prof. Priyadarshini Tadkodkar (Chair) and Dr. Hareendra Sarma.



Shri. N. Balakrishna Mallya, Dr. Nagendra Prabhu and Shri. Payyanur Ramesh Pai.



Adv. Uday Bhembre addressing the plenary session.



Shri. Anand G. Kamat, Shri. Nagesh Karmali (Chair), Adv. Uday Bhembre, Shri. P. N. Sivananda Shenoy and Shri. N. Muralidhara Pai.



Shri. B. Vijayan IAS, Chief Secretary to Govt of Goa, speaking at the Valedictory Session.



Team of the Seminar with Guests.



Image of the Memento distributed to the distinguished Resource Persons at the National Seminar



A specimen of Certificate distributed to the participants at the National Seminar

Session : 4

**Contribution of Konkanis to 'Hortus' :
w.r.t. Botany/Ethnomedicine/Ayurveda**

Chairperson : *Dr. K. Madhusudhanan, Ernakulam (Kerala)*

Resource Person : *Dr. V. Rajeev Shenoy, Cherthala (Kerala)*

Resource Person : *Dr. M. S. Kamath, Manipal (Karnataka)*

***Hortus Indicus Malabaricus* : Monumental Landmark Work in the History of Plant Resources of Malabar with Systematic Botanical, Ethnomedicinal and Ayurvedic Information**

- Dr. K. Madhusudhanan
Chairperson

Introduction

The flora and fauna of the Western Ghats amazed the Europeans who came to the Malabar Coast for spice trade. *Coloquis dos Simple* (Garcia de Orta, 1565), a check list on the medicinal plants of India is the first published Botanical work on the plants of Western Ghats. Subsequently after a century, a more elaborate work on the plants of Malabar Coast, *Hortus Indicus Malabaricus* (hereafter *Hortus Malabaricus*) was brought out. Considered to be the most comprehensive printed work on the natural wealth of Asia and of the tropics, *Hortus Malabaricus* was compiled and published between 1678 and 1693 by Hendrik Adriaan Van Rheede tot Draakenstein (Van Rheede hereafter), the then Dutch Governor of Cochin. Mentioned in these volumes are plants of the Malabar region (which stretches from Goa to Kanyakumari, about 900 km in length and varying from 74 to 200 km in width).

About Hortus Malabaricus :

The work describes plants with multiple uses as well as with medicinal properties. It includes modes of preparation and application, based on pre-Ayurvedic knowledge of the ancient, renowned, hereditary physicians of Malabar. The ethno-medical information presented in *Hortus Malabaricus* was contributed by Itty Achuden, an ayurvedic physician, and three Konkani Brahmins Scholars (referred to in the text as 'brahmins') – Ranga Bhat, Vinayaka Pandit and Appu Bhat, followed by a process of thorough verification, discussions based on general agreement. The contribution of the three Konkani Brahmin Ayurvedic scholars helped the Dutch botanist Henric Van Rheede to write the first monumental work on Plant wealth of Kerala. These scholars gave him a testimonial on the authenticity of the knowledge as a testimonial in Konkani. The final draft was translated into Portuguese by the official interpreters of the Dutch East India Company. From Portuguese, the text was rendered into Dutch and thence to Latin. The introductions, forewords and dedications given separately in various volumes also contain valuable insights into the cultural, social, political, historical and linguistic conditions of 17th century Malabar. The descriptions of plants comprising their habit, foliage, flowers, fruits, colour, smell, taste and practical value appear in *Hortus Malabaricus* under their Malayalam names. The plates bearing illustrations have been inscribed in Roman, Malayalam and Arabic

scripts. Konkani names are given in Devanagari script. Nearly all the plants are illustrated (of the 791 plates, 712 are in double folio size and 79 in folio size). Van Rhee de employed over 200 knowledgeable local collectors to bring to him whole plants or their twigs bearing flowers, fruits and seeds in different seasons. Many of these plants were introduced in the Company's gardens. Four soldiers from the Dutch Army were asked to execute the illustrations, to which descriptions were added in his presence. Then, a board of 15-16 expert physicians and botanists from various parts of Malabar was engaged to examine the materials prepared and present its opinion about the curative properties of the plants collected. Hundreds of bundles of all the plants collected and put in folded papers indicating their names, uses and description were shipped to Amsterdam, where they were thoroughly scrutinized by several experts. Thus Van Rhee de's *Hortus Malabaricus* is the result of about 30 years of compiling and editing by a team of the best among 17th century European physicians, professors of medicine and botany, amateur botanists, Indian scholars and *vaidyas* (physicians) of Malabar and adjacent regions, and technicians, illustrators and engravers, together with the collaboration of company officials, clergymen (D. John Caesarius and Father Mathew of St. Joseph). This stupendous undertaking by the Dutch Governor of Cochin was greatly assisted by the King of Cochin and the ruling Zamorin of Calicut. The complete original title of the work is *Hortus Malabaricus, continens Regni Malabarici apud Indos celeberrimi omnis generis Plantas rariores*.

This 12 volume monumental work formed a land mark in the history of plants resource studies in India and Malabar in particular and it is intimately associated with systematic botanical knowledge. Taxonomy deals with the study of the principles and methods of classification and is one of the cornerstones of biology, which allow us to deal in an organized way with the living world. Systematic is defined as the science that brings out unique properties at each level of grouping of organisms. It is the science connected with identification, nomenclature, description and classification of organisms based on unique properties of every species and groups of species at every level of classifications. Simpson (1961) has defined systematic as the 'study of diversity of organisms and all their comparative and evolutionary physiology and comparative biochemistry'.

Emergence of Systematic botany :

The term systematic was coined by Linnaeus (1751) and it is often used interchangeably with taxonomy. Now many new more branches of taxonomy have emerged and among this numerical taxonomy and phylogenetic taxonomy holds prominence. Numerical taxonomy is defined as the numerical evaluation of the similarity between groups of organisms and the ordering of these groups in to higher ranking taxa on the basis of these similarities. It integrates data from various sources such as morphology, palynology and phytochemistry.

Selected illustrations from the stunning *Hortus Malabaricus* (Garden of

Malabar), an epic treatise dealing with the medicinal properties of the flora in the Indian state of Kerala. Originally written in Latin, it was compiled over a period of nearly 30 years and published in Amsterdam between 1678 and 1693 in 12 volumes of about 500 pages each, with a total of 794 copper plate engravings. This work initiated the beginning of major publications and illustration of Indian Botany and also about world flora. Major contributions to the floristic studies in India were made by the Britishers and among them the contribution of Robert Wight on the Flora of Peninsular India are the most outstanding. His major publications are: *Illustrations of Indian Botany* (1840) and *Icones Plantarum Indiae orientalis* (1838-1853). Wight together with Arnott published *Prodromus Florae Peninsulae Indiae Orientalis* (1838-1853) in which several new taxa were described. The other important publications were: *The flora Sylvatica for Southern India* (Beddome, 1869-74), *Icones Plantarum Indiae Orientalis* (Beddome, 1868-74), *Flora of British India* (Hooker 1872-97), *Flora of the Presidency of Bombay* (Cooke, 1901-08) and *Flora of the Presidency of Madras* (Gamble & Fischer, 1915-36).

The use of plants as medicines antedates history and there are many references on ethno-medicinal and ayurvedic healing effects of plants in Hortus Malabaricus. Herbal medicine represents probably the first, and certainly the oldest, system of human health care. Almost all civilization and culture have employed plants in the treatment of human sickness. The Indian system of Ayurveda is probably 5000 years old. On the basis of knowledge contained in Rigveda and Atharvaveda, the treatises Charakasamhita (900 BC) and Susrutha samhita (500 BC) dealing with Ayurvedic pharmacopeias were compiled. From a historical perspective, botany as a science had its origin in the use of herbs as medicines. Methods of healing practiced by the people of the Mediterranean region and the orient found expression in the first century AD. During the 15th and 16th centuries, historically termed the age of explorations. Europeans sailed to different parts of the world in search of economic products and carried back with them the knowledge of healing practised in distant lands including Malabar region of India.

Van Rheede's – Passion for Malabar flora & Culture :

Van Rheede was born in 1636 in an influential and noble family and lost his parents in his boyhood, had no scientific training. He left the Netherlands when just 14 years old and entered the service of the Dutch East India Company at the age of 20. He was exposed to exotic flora at the Cape of Good Hope, Batavia and Ceylon (Sri Lanka). He took part in the conquest of Ceylon and Malabar while serving under Admiral Van Goens. For his exemplary performance in the battles and devotion to duty, Van Rheede was rapidly promoted to councillor, 'regedore major', first captain and sergeant major of Ceylon and Commander of Malabar. He grew fond of the land and its people and secured for himself a favorable place in Malabar society and established an influential relationship with the Raja of Cochin, Vira Kerala Varma. When he was asked to resign from

his post in 1678, he left Cochin and spent six years in the Netherlands. In view of his expert knowledge and talents, Van Rheede was appointed Commissioner General of the Western Quarters to streamline the affairs of the Dutch East India Company in 1684. He returned to India and spent a few years in various parts, arriving in Cochin in 1691. It is remarkable that, unlike other colonial army commanders, Van Rheede took a keen interest in the amazingly rich flora of the region and was deeply impressed by it. He was also deeply impressed by the Malabaris who, irrespective of their profession, were knowledgeable about plants in their surroundings and derived all their medicines from them. Van Rheede also studied the social system of Malabar of that period. About the Konkani brahmins he states: *'Those who have the care of the ceremonies and of religion are also very numerous, and they live in the greatest tranquility and are favoured by very ample benefices and great esteem, to which are added the gifts of the pious people, so that those men can quite rightly be proclaimed the happiest men of the whole world. They do not contract marriages with persons of another nation or foreigners, and yet they permit any people of whatever religion to live freely among them. They never pass beyond the boundaries of their native country and yet they do not resent the travels of foreigners.'* (preface to vol. 3).

Information on the medicinal uses of plants described in this book is of immense importance and current relevance, in the context of the growing global demand for natural drugs as well as the Intellectual Property Rights regime and Biological Patent Laws. *Hortus Malabaricus* is the first book in which Malayalam appears in print. As the technology was in its infancy then, engraving the mirror images on each page was done on copper plates. The engravers at Amsterdam had no knowledge of Malayalam language or its script and this resulted in certain distortions. Malayalam has been printed in the book to reproduce two certificates and to depict the names of plants alongside their illustrations. It is also believed to be the first but the only printed book in which both the *Kolezuthu* and the *Aryaezuthu* scripts of Malayalam language and numerals are used together, offering scope for further linguistic studies (K.S.Manilal, 2003)

Treasure house of Flora of Malabar in mid-17th century :

A perusal of the 12 volumes indicates that among the flowering plants a large number are trees. A break-up of plant diversity shows 67 members of the Fabaceae (bean family), 20 grasses, including three bamboos, 18 ferns, several aquatic plants, 17 cucurbits, 16 orchids, 15 sedges, 10 palms, 10 plants of the ginger family, two gymnosperms (*Cycas circinalis* and *Gnetum edule*) and only one moss – *Bryum bicolor*. Besides important native plants as well as those naturalized in the region since antiquity such as areca nut, banana, *bel* (*bilva*), black pepper, betel vine, *champak*, coconut, *elengi* (*bakul* or bullet wood), ginger, palmyra palm, red silk cotton, sappan wood (pieces of which are boiled even today to purify drinking water in Kerala), talipot palm

and turmeric, a large number of plants introduced from the New world by the Portuguese have been described. The important introductions include: sweet potato (*Ipomoea batatas*), papaya (*Carica papaya*), cashew nut (*Anacardium occidentale*), guava (*Psidium guajava*), custard apple (*Annona squamosa*), bullock's heart (*A. reticulata*), pineapple (*Ananas comosus*), English pumpkin (*Cucurbita moschata*), chillies (*Capsicum annum* and *C. frutescens*). The inclusion of their names as plants of Malabar indicates that the climatic and soil conditions were suitable for their introduction and cultivation, and that the people had assimilated them into their cuisine and culture. However, a few other important Portuguese introductions from the New World are conspicuous by their absence: tapioca (which is presently a staple food crop in Kerala and in many parts of Africa), potato, groundnut, vanilla, cocoa and tobacco. A few surprising alien elements in *Hortus Malabaricus* are *Gomphrena globosa* (from tropical and warm America), *Aloe vera* (a succulent from tropical South Africa, Malagasy and Arabia, probably introduced by the Arabs), *Canna indica* (from tropical America), and *Ipomoea quamoclit* and *Mirabilis jalapa* (four-o'clock plant or marvel of Peru) from Mexico and tropical America respectively.

Classical Illustration of Malabar flora:

One of the greatest attraction of *Hortus Malabaricus* is its quality drawings (illustrations). In general all the volumes are beautifully illustrated. A few are exceptional for their artistic presentation and accuracy and deserve to be highlighted (Manilal, 2003): **Volume 1:** *Cocos nucifera* (all drawings), *Areca catechu*, *Corypha umbraculifera*, *Borassus flabellifer*, *Caryota urens*, *Bauhinia variegata*, *Morinda citrifolia*. **Volume 2:** all pictures of *Pandanus* spp., and *Cassia tora*. **Volume 3:** *C. umbraculifera* (Coddapanna or mountainous palm of Malabar); *Cycas circinalis*, *Artocarpus heterophyllus*, *Annona squamosa*, *A. reticulata*, *Dillenia indica*, *Ceiba pentandra*. **Volume 4:** *Myristica malabarica*, *Lagerstroemia hirsuta*, *Calophyllum inophyllum*, *Guettarda speciosa*, *Salacia chinensis* and *Manilkara kauki*. **Volume 5:** *Ochlandra scriptoria*, *Clerodendrum inerme*, *Gomphia serrata*. **Volume 6:** *Hiptage benghalensis*, *Jasminum sambac*, *Tabernaemontana divaricata*, *Abutilon indicum*, *Hibiscus rosa-sinensis*, *H. mutabilis* (all pictures), *Bruguiera gymnorhiza* (excellent), *Butea monosperma*, *Cassia glauca*, *Caesalpinia sappan*. **Volume 7:** *Tetrastigma leucostaphylum*, *Piper nigrum*, *Gloriosa superba*, *Dioscorea hispida*, *Ipomoea batatas*, *Basella alba*, *Gnetum edule*. **Volume 8:** *Lagenaria siceraria*, *Cucurbita moschata*, *Benincasa hispida*, *Cucumis sativus*, *Luffa acutangula*, *L. aegyptiaca*, *Momordica charantia*, *Bauhinia scandens*, *Entada rheedii*, *Canavalia rosea*, *Zanonia indica* (showing vivipary?). **Volume 9:** *Ceropegia candelabrum*, *Nerium oleander*, *Neptunia prostrata* (although the nodules at nodes are missing). **Volume 10:** *Gomphrena globosa*, *Solanum melongena*. **Volume 11:** *Aloe vera*, *Elettaria cardamomum*, *Costus speciosus*, *Amorphophallus paeoniifolius*, *Colocasia esculenta*, *Lagenandra ovata*, *Nymphaea pubescens*, *Nelumbo nucifera*, *Pistia stratiotes*, *Ipomoea quamoclit*. **Volume 12:** *Rhynchosstylis retusa*, *Diplazium esculentum*, *Raphidophora pertusa*, *Lygodium flexuosum*, *Lycopodiella cernua*,

Saccharum spontaneum & *Fimbristylis argentea*.

Impact of *Hortus Malabaricus* on Linnaeus' *Species Plantarum* (1753):

The use of languages being considered crucial in the evolutionary history of humans, naming and classifying objects became an important activity. Long-distance travel and trade along land routes followed by journeys by sea during the age of exploration added to the profusion of common names of plants in both oriental and occidental languages. For example, cultivated plants such as rice and soybean have several hundred names in local dialects. Attempts made by early European botanists to classify and name plants in Latin resulted in phrase-names which are polynomials. Eventually it fell to the lot of the Swedish botanist Carl Linnaeus (1707–1778) to evolve an artificial (albeit practical) system of classification (based on the number of stamens and pistils in the flower) using an enormous amount of botanical data from several parts of the world in his monumental work *Species Plantarum*⁴. Linnaeus was also instrumental in strongly supporting the binomial system of nomenclature (already propounded by Bauhin in 1623). Since every specific name of this system consists of two parts – the generic name and the specific epithet, it is known as the binomial system. By suffixing abbreviations of the name of the person who first published the name (the term author is used for this purpose), Linnaeus solved the age-old problem of authenticity. The author's name is not a part of the botanical name, but is added for the purpose of precision. Thus the precise, referable, universal scientific name of the rice plant with its authenticity came to be accepted as *Oryza sativa* L. It differs from the related species of 'red rice' from West Africa, *O. glaberrima* Stendel. The International Code of Botanical Nomenclature presently in vogue, accepts the year of publication of Linnaeus' work *Species Plantarum* (1753) as the starting point for the nomenclature of all green plants (except mosses and a few special groups of algae). Among the numerous books that Linnaeus studied thoroughly before producing *Species Plantarum*, only two merited his respect. He stated in his book *Genera Plantarum*: 'I have not put my whole trust in any author excepting the work of *Hortus Elthamensis* by the very celebrated Dillenius and the work of *Hortus Malabaricus* by the illustrious Van Rheede, having my firm conviction in their accurate data' (cited from Manilal et al.⁶). Linnaeus has included 258 Malayalam names of plants from *Hortus Malabaricus* in *Species Plantarum*. In his later works Linnaeus took 95 more Rheedean elements. Importantly, Linnaeus adopted many Malayalam plant names to coin binomials directly or after Latinizing them. Manilal states that, among plant names derived from Indian languages in *Species Plantarum*, the largest number are of Malayalam origin.

Among the many plants native to the Western Ghats or those in domestication in the middle of 17th century Malabar listed in *Species Plantarum* (1753; 2nd edn, 1762–63) only a few are given here: *Elettaria cardamomum* (L.) Maton (the lesser cardamom); *Areca catechu* L. (the betel nut); *Borassus flabellifer*

L. (palmyra palm), *Cocos nucifera* L. (coconut), *Averrhoa bilimbi* L. (bilimbi); *Averrhoa carambola* L. (carambola or star fruit); *Ficus benghalensis* L. (banyan); *Ficus religiosa* L. (pipal); *Moringa oleifera* (horse-radish tree or drumsticks); *Indigofera tinctoria* L. (indigo); *Mangifera indica* L. (mango); A. Juss (named *Melia azadirachta* L. in *Hortus Malabaricus*) (neem); *Michelia champaca* L. (champak); *Mimusops elengi* L. (bakula or bullet wood); *Nelumbo nucifera* Gaertn. (named *Nymphaea nelumbo* L. in *Hortus Malabaricus*) (lotus); *Phyllanthus emblica* L. (Emblie myrobalan, amla or aonla); *Piper betle* L. (betel leaf); *Piper longum* L. (Indian long pepper); *Piper nigrum* L. (black pepper); *Tamarindus indica* L. (tamarind); *Nerium oleander* L. (oleander); *Crotalaria juncea* L. (sunn hemp); *Curcuma longa* L. (turmeric) and *Zingiber officinale* Rose. (named *Amomum zingiber* L)

Taxonomy is the method by which scientists, conservationists, and naturalists classify and organize the vast diversity of living things on this planet in an effort to understand the evolutionary relationships between them. Modern taxonomy originated in the mid-1700s when Swedish-born Carolus Linnaeus (also known as Carl Linnaeus or Carl von Linné) published his multi-volume *Systema naturae*, outlining his new and revolutionary method for classifying and, especially, naming living organisms. Prior to Linnaeus, all described species were given long, complex names that provided much more information than was needed and were clumsy to use. Linnaeus took a different approach: he reduced every single described species to a two-part, Latinized name known as the "binomial" name.

The medicinal properties of the plants concerned, as originally certified by the unchallenged authorities of traditional medicine in Kerala who supplied all such information, have been translated and interpreted by Manilal. Commentaries have been given on the etymology of the Malayalam names, revealing their traditional uses as well as their botanical peculiarities. In addition, the identity of all the plants and correct scientific botanical nomenclature acceptable under the International Code of Botanical Nomenclature (ICBN), have been provided by Manilal along with their important synonyms and basionyms. The exquisite illustrations have enabled Manilal to identify many of the plants up to the generic level. However, they lack sufficient technical details of floral characters that are required by taxonomists to determine the specific name. To overcome this handicap, Manilal and the research scholars in his group have visited and collected nearly all the plants described in *Hortus Malabaricus* from localities where they were originally gathered three centuries ago. The plants and their floral parts were then subjected to detailed observation and the correct identity of most was established.

Indigenous knowledge, taxonomy and biodiversity :

Indigenous knowledge (IK) of the people of a country directly depends on its biodiversity. The people are interacting with their surroundings environment and their IK is directly proportional to the biodiversity of their habitat. In biodiversity

rich nations there are some information on the utilization pattern, local name and distribution among native people which preserved through generation to generation either in codified or non codified form. If the knowledge on the life forms has to document properly for the future uses requires adequate information on identification, nomenclature and classification of life forms. The taxonomy become relevant in this context and Van Rheede's work also got significant attention because he was quite successful in documenting this information. IK adds an eventful step for the application of taxonomic knowledge by documenting the use of the plant with correct identity and nomenclature, pertaining to an ethnic group. The role of taxonomists is to recognise the plant material for the scientific community and the testing of the veracity of its use to people dealing with IK issues. Therefore it is important to link IK, taxonomy and biodiversity with and some of the important points are:

1. Scientific documentation of IK is one of the applied branches of taxonomy
2. A competent taxonomist can be able to identify and document resources for the future generations
3. IK practices will add more effective methods for biodiversity conservation and its sustainable utilization
4. Taxonomist can collect more substantial evidences and develop more concepts from Folk taxonomy, ethno taxonomy

Scope and importance of ethnomedicines:

Traditional healthcare practices of indigenous people pertaining to human health are termed as ethno-medicines. Much knowledge accumulated by the villagers and tribals on herbal medicines remains unknown to the scientists and urban people. Many plant species associated with the rural people have already disappeared forever and many more are on vulnerable list. The impact of deforestation, urbanization and modernization is shifting the rural people from their natural habitats and their rich knowledge particularly with respect to herbal drugs is slowly disappearing. For the preservation of medicinal plants for primary health care, establishment of community herbal garden are necessary. This ensures sustainable supply of safe, effective and affordable medicinal herbs.

Back to conventional Botany based research:

Botany as such has suffered a great deal due to several emerging modern branches like biochemistry, biotechnology, molecular biology, modern plant pathology, ethno botany and so on and all these have been off shoots from botany. These days' fundamental papers of botany are not properly taught and ignored at the pretext of modern botany and its developed aspects. Thus the students do not have firm foundation of botany. Several significant classical branches of botany like systematic, cytology, embryology, anatomy, pathology which are of immense value for advanced learning and research are being neglected.

Fundamental contributions made over the years by botanists, embryologist and morphologist to cell biology and studies of in vitro differentiation have been a major sustaining force behind all recent developments. There is a considerable need to strengthen our basic knowledge of plants and continued efforts in aspects related to taxonomy, ecology, physiology, genetics and traditional plant breeding are most essential. Identification of wild relatives of crop plants that harbour genes for pest and disease resistance as well as stress tolerance would involve high level expertise in such areas of traditional botany. It is therefore, apparent that considerable traditional or classical work must be done to supplement the advances in modern research. To establish sustainable biotechnology programme, we must establish centres of excellence where persons skilled in the traditional and classical aspects of botany can be trained in the same manner in which we encourage research and development in the modern aspects of molecular biology and genetic engineering. Under the impact of 'molecular biology wave', traditional botany has been pushed aside and several areas like taxonomy have been ignored. Efforts to generate interests in these neglected areas may have to be intensified if classical botany has to retain its right place in future development in biotechnology. I feel this issue can be solved if our research funding agencies like CSIR, UGC, DST, DBT etc. have to realize and direct that classical studies are the back bones of modern research and appropriate funding in this direction has to be channelized.

The enormous practical outcome of the English edition of *Hortus Malabaricus* by Dr. Manilal has opened up a database on the economic plant resources native to Kerala in the Western Ghats of India, the rich traditional knowledge system and application of medicinal plants for human diseases and disorders, cultivation and assimilation into our culture plants introduced from different parts of the world, including Latin America. It offers wide opportunities for further research in various fields such as botany, pharmacology, medicine, politics, geography, social history, linguistics and evolution of printing technology. Above all, Manilal has underscored the importance of taxonomy and its utility. Paradoxically *Hortus Malabaricus*, originally meant to provide foreign powers a resource base in India, will be helpful through its English edition in safeguarding hundreds of Indian medicinal plants to prevent patenting against Indian interests and will act as a weapon against the negative impacts of globalization. In the coming days new dimensions and intensified research has to be taken up to join the weakened links and inventory on the plants mentioned in *Hortus Malabaricus*.

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Contribution of Konkani to 'Hortus': w.r.t Ayurveda

- Dr. V. Rajeev Shenoy

I have great pleasure and pride to present a paper on contribution of Konkani Brahmins to Hortus with respect to Ayurveda at the Homeland of Konkani i.e, Goa.

My humble attempt is to infuse authentic knowledge of Ayurvedic medicines applied by our Konkani Ayurvedic Doctors. They could inherit the knowledge from their father, grand father etc ; who in turn learned from Vedic Sootras. Their inherent Sanskrit knowledge might have opened enough ventilation to Ayurvedic study – its implications as well as applications.

They were told to explain Ayurvedic medicines just from the local plants – its roots, flowers, fruits, leaves, nuts etc which were delivered to them by our Mother Earth at Malabar west coast area about which 'Hortus' is dealt with.

They could preserve them scientifically and reserve them for the treatment of mankind. Not only our GSB Ayurvedic Doctors in the past were experts in treatment, but they exported their knowhow to western countries also.

Incidentally let us go back to the Goan Ayurvedic scholars who settled at Kochi, even before the 17th century. This time tested truth was convinced to the western people without any shadow of doubt. Hence the western experts welcomed our doctors for their Ayurvedic applications.

Perhaps, many of you may know better than what I know in this regard. However, I am here not for any dispute in the connected matters, but only to welcome healthy discussion in this aspects. Still may I make an humble attempt to expose the Konkani linguistic connections about Ayurvedic medicines. Expecting a patient and tolerant hearing from all of you I spell as below.

The Testimonium given in the 'Hortus' may be the first evidence of Konkani script. It is written in Devanagari as like Sanskrit. In the testimonium, the three of them have mentioned about a "Nighantu" with them. They referred the same if they had any doubt.

There is a saying that "Nighantu Vina Vaidya,

Vidwan Vyakaranam Vina ,

Ayudham Vina Yodha" (Raja Nighantu)

i.e, without a Nighantu, a vaidya cannot get excellence, without grammar a Vidwan can't and without a weapon a soldier can't withstand. It is a Pramanam in Sanskrit.

It may be a Maha Nighantu (Maha means the great or precious), the oldest Dhanwantari Nighantu, of which the author is unknown. Referring Amara Kosa by Amara Simha, "Vanoushadhi Varga" is similar to Dhanwanthari Nighantu. So it may be before 6th century. (*Introduction to Ayurvediya Oushadha Nighantu* in Malayalam by Thaiyil Kumaran Krishnan)

Oldest Dhanwantari Nighantu is the upadesha given by Lord Dhanwantari to his disciples.

This I say only to state the knowhow of these three Brahmins about Ayurveda.

For thousands of years, in many countries of the world including India, remedies from medicinal plants have cured a lot of people from all kinds of diseases, the most important advantage being no side-effects on the body.

So, the tradition of medicinal plants use in India is thousands of year old, the Rig Veda (4500 -1600 BC) is perhaps the oldest document where medicinal plants have been described. Karanja, Kinushka, Palasha, Semala to name a few.

Yajur Veda tells about a few more plants and few diseases are named such as Arsas, Yashma, Sleepadam, Kushtam etc.

Atharva Veda tells about the treatment via medicinal plants and is the origin of Ayurveda. It mentions diseases like Apasmara (epilepsy), Athisara (diarrhoea), Athimoothratha (excessive urination). It explains 4 types of herbs as Atharvani, Aagirasi, Daivi and Manushyaja. It also talks about the curing properties of water, air and also about the lifestyle for a healthy mind and body.

Vedas are regarded as the treasure house of ancient wisdom of Indian Civilization and culture and it used to be a custom in Brahmins to learn the Vedas in childhood orally from a Guru in Sanskrit. It is rightly said 'Vedadhyanam sarvam gurvadhyana poorvakam' i.e, they can be learnt only from a guru; and the verses are impressed on the memories of young children as they say their memory has greater vigour then, and can be retained. All this is done with such skill that if any mentions the name of a plant a Brahmin can tell you offhand all it has or can be said about it.

The brilliance of the three Konkani Brahmins who contributed to Hortus, namely Ranga Bhat, Vinayaka Pandit and Appu Bhat shows they were well versed in Vedas, Vedantas and Sastrarthas.

In Ayurveda, over 14,000 plants are documented in various texts like Charaka Samhita, Sushruta Samhita and Ashtanga Hrudaya. *HORTUS MALABARICUS* is a comprehensive treatise that deals with the medicinal properties of the flora in Malabar.

The book by Hendrik Van Rheede was compiled by the 3 GSB scholars and Ayurvedic physicians with a Malayali physician, Itti Achuthan.

Comprising 12 volumes with 794 copper engravings on it about 742 plants, it is believed to be earliest printed work on the flora of Asia and tropics (1678-1703).

Today, India has about 15,000 species of medicinal plants and 8,000 of these are used as : Ayurveda-1768 species, Siddha-1121 species, Unani-751 species and rest as tribal and folk medicine.

Our forefathers knew better, they developed a system of living, prayer, the right food, exercise, nature's medicine. Their concept that 'Jagatyevam Anowshadham" – what we see in the nature are medicines tested and trusted by generations for healthy living,

Conclusion

Hortus Indicus Malabaricus, written in the 17th century, is the greatest achievements in the history of plant documentation. This shows that long ago Konkani Brahmins were aware of Ayurvedic concepts of medicinal plants and its uses. The morphology explained still serves as identification aid for many plants. The parts used and their method of usage explained in the book is very simple and can be used as home remedies.

I hope at least some of you will try these at home.

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An Insight into Ayurveda's Knowledge of Medicinal Plants and Contribution of Konkani Physicians to it through Hortus Malabaricus

- Dr. M. S. Kamath MD (Ayu.)

Introduction

Nature has provided man with food, water and air in abundance. As man eats to live he falls prey to illnesses and nature has provided medicines also. It is said in India that the God created both nutritional and medicinal resources simultaneously to ensure man's healthy survival. Ayurveda has a documented history of more than 3000 years of using the plants and other substances for the purpose of food and medicine.

Ayurveda is a science of life. It not only deals with the disease curing process but also lays great emphasis upon the maintenance of positive health of a normal healthy person.

Man has eternally endeavoured to keep himself free from three types of miseries, namely physical, mental and spiritual. Therefore the history of medicine is as old as the history of mankind. According to the Indian tradition, the four primary objectives of human life are *Dharma* to perform religious rites, *Artha* to acquire wealth, *Kaama* to satisfy the worldly desire and *Moksha* to attain salvation. Good health was considered to be the sine-qua-non for the achievement of these objectives.

It will be seen from the definition of *Ayurveda* as Science of Life that *Ayurveda* lays emphasis upon leading a life, which is full of happiness, which implies an individualistic attitude, and leading a life, which will be useful to the society as a whole. Social medicine which is treated as a new concept in the modern systems of medicine is nothing but reminiscent of what has been preached and propounded in *Ayurveda* more than 2500-3000 years ago.

Genesis of plant knowledge

The use of plants for medicinal purposes has a very long and unbroken history. The "Oushadhi Sukta" in Rgveda (10.97.1-23) is the oldest document available on medicinal plants in India. The morphological characters of medicinal plants, their habitat, therapeutic classification and uses in various ailments are briefly described in it. It is understood from the Vedic hymns that the initial usage of plants for medicines was also based on observation of their effects on animals like boars, mongoose, tortoise, snakes, cows etc.

Another important basis was what is sometimes termed as the Doctrine of Signature, which makes a comparison between plant parts and the human body parts such as hair, skin, blood, flesh etc. for deciding the suitability of a plant for treating an ailment, for example, stem bark for skin conditions, the yellow Haridra (Turmeric) for jaundice, Laksa (Lac) and red colour plants like Manjista (*Rubia cordifolia*) for haemorrhage etc.

There appears to be systematic documentation of the understanding of medicinal plants in the post Vedic/Samhita period and it came to be expressed in a systematic body of knowledge called "Ayurveda" in due course.

Ayurveda has a unique way of understanding plants, starting from the earliest text available, i.e., Caraka Samhita (1500 BC – 400 AD), exhaustive descriptions about plants and their medicinal uses are available. There are a good number of classical Ayurvedic texts and manuscripts which deal with plants. These are largely Samhitas, Sangrahas, Nighantus, Vyakhyas and texts on specific areas like pharmacy (Bhaishajya Kalpana), pediatrics etc. The information related to nomenclature, descriptions for identification, biological properties and actions, habitat, regional specifications of substitutes, time and methods of collection, methods of classifying, computing and combining plants, processing, application in specific stages and conditions, incompatibility, contra-indications, recipes, information regarding poisons and so on can be found in the scripture (See Appendix I for a list of various literature of Ayurveda on medicinal plants)

Vrikshaayurveda is one of the minor sciences derived from the ancient Indian heritage. Minor in the sense that there is no teaching, learning system available. Still some technologies are in use by the farmer. *Vrikshaayurveda* literally means *Ayurveda* of plants that ultimately means sciences dealing with every aspect related to the life of plants.

The most popular texts of *Vrikshaayurveda* are *Upavanavinoda* of *S'haarangadhara* and *Vrikshaayurveda* of *Surapaala*. Both the texts contain nearly the same material with some deviation. The *Upavana Vinoda* is a chapter from the anthology *Sarngadhara Paddhati*. The period is 13th century A.D, *Surapaalas Vrikshaayurveda* is a manuscript and it stands alone as the work of the author *Surapaala*. Another major resource text on the subject is *Brihat Samhitaa*. Though it is not totally devoted to the subject, it covers many areas of *Vrikshaayurveda*. Other texts are *Krishi Paraas'hara*, *Krishi Sookti*. Some other texts like *Amarakos'ha*, *Dhanvantaree Nighan't'u*, *Bhaavaprakaas'ha Nighan't'u* also cover some part of *Vrikshaayurveda*. Later texts from South India *S'hivatatva Ratnaakara* have merely copied the verses from *Upavana Vinoda*. This shows that the subject was not developed after the 14th century.

The major texts *Upavanavinoda* and *Vrikshaayurveda* of *Surapaala*, cover the

following topics:

- a. The glory of plants
- b. The good and evil omens of plants planted near the house
- c. Discussion of soil
- d. Classification and morphology of plants
- e. The processing of seeds
- f. Plantation
- g. Watering of plants
- h. Safety of plants
- i. Method of gardening
- j. Detection of water in soil
- k. Nurturing of plants
- l. Treatment of plant diseases
- m. *Vichitrikaran`am*, novelty possible by efforts on the plants
- n. Indicators to predict the generation of Agri products

East-West encounter in medicine

The age – old tree of Ayurveda was shaken by many winds in its long history. It had given much to human knowledge and welfare, and received in turn gifts of knowledge relating to pulse, mercury, opium and treatment of syphilis from other lands. Charaka had explicitly stated that the 'entire world is a teacher for the wise'. Among the many global winds, the strongest to sway the Ayurvedic tree was modern science which dawned in Europe no more than 400 years ago. Its spread to India and contact with Ayurveda was a part of the East – West encounter which characterized colonial rule in Asia. The initial wave of the Portuguese brought a remarkable man, Garcia da Orta – a Jewish physician – to Goa in the 16th century. The colonialists were devastated by Tropical diseases, and Portuguese records show horrific mortality among them. Alarmed and at a loss, Garcia da Orta and colleagues turned to the medicine practiced by native physician for assistance. An astute observer, good physician and talented writer, da Orta wrote his classic *colloquies on the Simples and Drugs of India* (in 1563) in the form of dialogue based on his long experience in Goa. The book was translated in to several European languages and made the native medicine of India widely known in Europe. This was followed by the classic study of the medicinal plants of Malabar under the direction of Hendrik Adriaan Van Rheede – the Dutch governor of

Kochi. The study was published in the 17th century as *Hortus Malabaricus* after a 30-year effort which contained ethno – botanical lore on plants from Goa to Kanyakumari. The vast information of the identification, history, and application of the plants for this study was supplied by herbalists and Ayurvedic physicians in Kochi including three Gouda Saraswat Brahmins (physicians) named Ranga Bhat, Vinayaka Pandit, Appu Bhat and Malayali physician, Itti Achuden who was an Ezhava doctor of the Coast of Malabar. The interest in India's medicinal plants reached such high levels that 75% drugs of vegetable origin in British Pharmacopeia in the 19th century were indigenous to India. For 300 years, modern science viewed Ayurveda through the window of plant science. While the European Physicians did not shrink from using traditional herbal drugs in treating serious tropical ailments such as dysentery in India, they never paid much attention to the basic concepts of Ayurveda.

The Portuguese woke up to the reality of tropical medicine in 17th and 18th centuries when epidemics reduced the Goan population from 400,000 to 40,000 and claimed the lives of no less than 10 Viceroys and governors. They set up a medical school which produced graduates for Portuguese territories by 1881, but it had little influence over the rest of India. The Portuguese employed local vaidyas when Europeans were too few and prescribed Âyurvedic remedies for unfamiliar diseases of the tropics. The British who followed established medical colleges in Calcutta, Madras and Bombay and promoted medical education including the training of midwives and nurses. Hospitals were initially built for Europeans, army officers and their families, but more had to be built for the natives who literally clamoured for them. Apart from the British initiatives in medical education and building of modern hospitals which transformed health care in India, the contributions of European physicians and scientists to the classification and publication of Indian medicinal plants were considerable.

Similar efforts were soon made by Indians and a splendid example was an exhaustive catalogue on indigenous plants and drugs published in 1869 by Muiudin in Chennai. These publications generated worldwide interest in India's legacy of medicinal plants. In the early phase of the East–West encounter between 1750–1820 when the conquest of India was not complete, British observers tended to look at Indian technological practices critically, accurately and often with some degree of admiration. The reports of competent British observers who lived in India for many years and sent their observations to the Royal Society, Royal College of Physicians, etc., in the UK bear testimony to the serious attitude of foreign observers to Indian technology during that period.

Ayurveda too was then viewed with tolerance, and the herbal extracts incorporated into the formulary without subscribing to the theoretical

framework of Ayurveda. But the tone of British reports changed after India's complete subjugation and the "de-industrialisation" of Bengal. Macaulay regarded Indian literature as trash, and colonial officers generally looked with contempt on India's scientific, medical and cultural heritage. In promoting modern medicine, the colonial rulers also took every possible step to discourage the development of Ayurveda which was regarded as unscientific and lacking in merit.

In this unpromising scenario, Ramnath Chopra blazed a new trail by linking pharmacologic research in herbal preparations with bedside medicine and Ray added another dimension by setting up a drug manufacturing unit in Bengal. The commercial production of Ayurvedic formulations based on ancient formulae with the observance of quality standards was achieved against skepticism and opposition by Vaidyaratnam P S Varier's Arya Vaidya Sala, Kottakkal in 1902. Lakshmipathy, Gopalacharlu and others in the South, Gananatha Sen in Kolkata, and a small number of other pioneers in the rest of India kept the Âyurvedic spirit alive, which was sustained on the ground by the support of millions of common people. The lamps lit by the pioneers shone during the long night of Ayurveda which greeted the dawn at Indian Independence.

Hortus Malabaricus

Hortus Malabaricus is the oldest important printed book on Indian medicinal plants. The 1st of its 12 volumes was published in 1678 from Amsterdam this book, written by H.A. Van Rheede is perhaps the only authentic record of the ethnoiatrical knowledge of ancient Malabar, available to us today. Several hundred medicinal plants which were successful used by the Ayurvedic physiclans of 17th century are described in this, along with their medicinal powers and methods of application. The identity of many of the plants described has not yet been accurately established, which would be of considerable interest to Ayurveda.

Hortus Malabaricus is also the oldest important printed book on Indian plants in any European language. It took several years to compile and publish this book, in which Rheede was assisted by dozens of experts including physicians, scientists, artists, plant collectors, interpreters, etc of Malabar and Europe. Among them special mention may be made of brother Mathew, John Caesarius, Itty Achuden, Ranga Bhat, Vinayaka Pandit, Appu Bhat, Emmanuel Carneiro and H. de Donep. Ultimately about 780 species of the most important plants of Malabar were described in *Hortus Malabaricus*, supported with 794 unusually beautiful illustrations. Along with a description of each plant in Latin and its name in four scripts (Malayalam, Nagari (Konkani), Roman and Arabic).

Hortus Malabaricus was liberally used about 75 years later during the renaissance of botanical science, Carl Linnaeus, father of modern botany, in

developing his botanical system.

Konkanis and their contribution to Ayurveda and Hortus Malabaricus

In order to understand the antiquity of Konkanis, Konkani Brahmins we should look at the Skanda Purana and its Sahyadri khanda. Sahyadri Khanda is of much importance to us, the Konkanis, as it deals with sacred places of the Konkan-region extending from Poona down to Dakshina Kannada. The first chapter of the Uttarardha of the Sahyadri khanda contains the traditional history of all the Brahmins that have settled on the west coast. According to the account given there, the Brahmins were divided into two main divisions, as the Gaudas and the Dravids. The Gaudas consist of Sarasvat, Kanyakubja, Maithila, Gauda and Utkal Brahmins. The Dravids consist of Dravida (Tamil), Tailang (Telugu), Karnata (Karnataka) Madhya deshi (Maharashtra) and Gurjara (Gujarat) Brahmins (Source : Skanda-Purana-Sahyadri Khanda from book Sadguru Pooja-1986). Much more details on Konkanis belonging to Gouda-Sarasvat-Brahmins (GSB) has been narrated by By N. Purushothama Mallaya in his article "Gowd Sarasvats in History" (Source : Sadguru Pooja-1986).

In fact we have very little information available about the Konkanis contribution to Ayurveda. It is very well known fact that for generations, Ayurveda has been practiced in Kerala successfully. Even today it is the only place in India, where Ayurveda is practiced extensively and successfully also. The Gowd Sarasvat Brahmins of Kerala have done much for the development of Ayurveda. The reference in Hortus Malabaricus (1678) of three Konkani Brahmin physicians, viz. Ranga Bhat, Vinayaka Pandit and Appu Bhat from Cochin appears to be the oldest reference towards the contribution of Konkanis to Ayurveda. This work has the names of the different plants in Konkani in Devanagari script.

Some more light on Konkanis, specially Gowd Sarasvat Brahmins' contribution to Ayurveda has been presented by K. Visvanath Kamath in his article "Srimad Bhuvanendra Thirtha Swamiji" (Source: Sadguru Pooja book). I quote from his article :

"During the study, it was the privilege to meet 82 years old scholar, Krishna Bhat, Cherai, Kerala. We gathered the following information from him. One of the four sons of Pilu Kamath, called Baba Kamath, settled in Kurupalli. Venkatesh Kamath, son of Baba Kamath was a celebrated Ayurvedic Physician of Kerala. One son of Pilu Kamath called Achyut Kamath, settled in Cochin and Appucha Kamath of this family of Cochin Kamath's in the eighteenth century, was celebrated Ayurvedic physician of Kerala. This is the family tradition in the field of Ayurveda and in this family, Srimad Bhuvanendra Thirtha Swamiji was born in 1837."

Born to Giri Kamath and Gauri Bai, Narasimha Kamath, the second son

later was initiated as Srimad Bhuvanendra Thirtha Swamiji by Srimad Sumatheendra Thirtha Swamiji, in the year 1851, at an early age of fourteen years. Narashimha Kamath had one elder brother named Vaman Kamath and one younger brother named Krishna Kamath. At that time Ayurveda was the only system of medicine prevalent in Kerala and it was practiced by only some able persons. There was no schools or colleges, as such, for teaching Ayurveda. It was acquired by persons as their ancestral profession. Hence for the last more than 200 years, the Kamath's family of Pallipuram (earlier Kurupalli) were practicing Ayurveda, as their ancestral profession. I feel proud and blessed as I also belong to this famous Kamath's family of Kerala.

His Holiness Srimad Bhuvanendra Thirtha Swamiji did yeomen service in the field of Religion, Sanskrit, Education, Ayurveda and Sculpture. Because of his blessings many families have propagated the profession of Ayurveda, like Pangal Nayak's family, Dr. J.A. Bhat's family are some to mention here. Many authors (Dr. J.A. Bhat, M. Anantha Kamath etc.) have written extensively about the expertise and skills of Ayurveda practice of Srimad Bhuvanendra Swamiji elsewhere, which is not read here for avoiding repetition.

There is also very close affiliation of Sri Samsthan Kashi Matt to Ayurveda. Not only Srimad Bhuvanendra Thirtha Swamiji, several other pontiffs of the Samsthan were also great Ayurvedic physicians. According to Dr. M.R. Bhat, as reported in page 107 of Gowd Sarasvat Brahmin Seva Sangha Mangalore, Silver Jubilee Souvenir published in 1963, the eleventh pontiff of Sri Kashi Mutt Samsthan was Srimad Rajendra Thirtha Swamiji. His holiness wrote the celebrated book "Sharira Vinischaya". His Holiness was a famous writer in Sanskrit and he was a specialist in the treatment of diseases of the stomach and mantra medicine.

In a recent book on Hortus Malabaricus by N. Purushothama Mallaya, I find a Malayalam article "Gowd Sarasvata Brahmanarum Ayurvedavum" written by S. Ratnakala Visweshwar MA. As this article is written in Malayalam, I was unable to read it fully and get details from that. If this article is translated in English, then it may help scholars like me who is researching on Konkanis' contribution to Ayurveda.

Conclusion:

The usage of plants for medicinal purposes and descriptions of its various aspects were prevalent from Vedic period itself. This unbroken tradition has continued through the Brahmanas, Upanishads, Samhitas and Nighantus till date. A rigorous and systematic documentation of medicinal uses of plants is available from 1500 BC.

The tradition has been quite dynamic till date. There has been omissions and

new introductions of plants over time. The rich folk tradition of the subcontinent and the classical traditions have had an interdependent relationship. A good number of the hand written manuscripts are yet to be researched. A lot of sharing has taken place among the various countries in the past.

Ayurveda has a very elaborate and systematic understanding of plant life in its various aspects. The plants are understood on several well-defined parameters before being admitted to the pharmacopeia. This process is quite rigorous and difficult and therefore only about 1/5 of the 7,500 plants known to the ethnic communities of India have been fully studied on Ayurvedic parameters and introduced in to its literature.

Hortus Malabaricus by H.A. Van Rheede, published between 1678-1693 in 12 vol. is the only earliest reference available to us to throw some light on Konkanis and their contribution to Ayurveda as well as Hortus Malabaricus.

There is great need to establish some center of learning by GSB's to propagate Ayurveda, to uphold their relation to Ayurveda and to conduct further research in Ayurveda.

Acknowledgement:

I am very much thankful to Sri. Payyanur Ramesh Pai for providing me important information, articles, pictures etc from time to time, which has helped me a lot to write this paper. I am also thankful to Sri. Bhaskar Shenoi and Anugraha Charitable trust, Ernakulam for sending me a copy of the latest book on Hortus Malabaricus by Sri.N. Purushotham Mallaya.

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APPENDIX I

Sources of Classical literature on plants

Sl No	Text name	Chronology	Author	Region	Plant Ref. No.
1.	Caraka Samhita	1500 BC – 400 AD	Agnivesa Caraka Drdhabla	Himalaya Kashmir	12,850
2.	Susruta Samhita	1500 BC – 500 AD	Susruta Nagarjuna	Kasi Sindhudesha	9,650
3.	Astanga Sangraha	500 AD	Vagbhata	Sindhudesha	20,500
4.	Astanga Hrdayam	600 AD	Vagbhata	Sindhudesha	9,900
5.	Astanga Nighantu	800 AD	Vagbhata		2,100
6.	Paryayaratnamala	900 AD	Madhava	Silahrda	1,900
7.	Dhanvantari Nighantu	200 – 1000 AD	Unknown	Unknown	3,250
8.	Cakradatta	1075 AD	Cakrapanidatta	Vanga desa	12,300
9.	Dravyaguna Sangraha	1075 AD	Cakrapanidatta	Vangadesa	320
10.	Madhavadravyaguna	1250 AD	Madhava	Unknown	750
11.	Sarngadhara Samhita	1300 AD	Sarngadhara	Devagiri	4,200
12.	Nighantu Sesa	1200 AD	Hemachandra	Unknown	2,950
13.	Siddamantra	1210 – 1247 AD	Kesava	Unknown	950
14.	Hrdayadipaka Nighantu	1260 – 1271 AD	Bopadeva	Unknown	820
15.	Madanapala Nighantu	1374 AD	Madanapala	Kashthana-gara	3,000
16.	Bhavaprakasa	1550 AD	Bhavamisra	Kasi Kan-yakubja	11,200
17.	1700 AD	1550 AD	Bhavamisra	Kasi Kan-yakubja	2,600
18.	1896 AD		Naraharipanda	Kasmira	7,300
19.	Saligrama Nighantu		Saligramvaisya	Muradabad	4,200
20.	Siddhabhesajamanimala	1896 AD	Krshnaramabhatta	Jayapura	620

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Session : 5

Linguistic Analysis of Konkani Language in Hortus

Chairperson : Prof. Priyadarshini Tadkodkar, Panaji (Goa)

Resource Person : Prof. Bhushan Bhawe, Ponda (Goa)

*Resource Person : Dr. P. R. Hareendra Sarma,
Thiruvananthapuram (Kerala)*

Oldest Record of Written Konkani

-Prof. Priyadarshini Tadkodkar
Chairperson

It is a matter of great pleasure and honor to preside over the seminar on linguistic analysis of "Hortus Indicus Malabaricus".

We Konkani speaking people should feel extremely proud that a great literary and scientific work was performed in 17th century in Konkani in a distant land of Kerala though separated from homeland by hundreds of miles.

Uptil now in the Konkani curriculum our education was restricted around the "Testimonial" in the "Hortus". This curriculum was handicapped by lack of detailed research.

However fortunately there has been further efforts in throwing light on contribution of Konkani people in making of "Hortus". It is a matter of great pleasure to note that in this ongoing session multitude aspects of the contribution of Konkani language are presented.

On the basis of papers and documentation presented in this seminar I can vouch with great safety and certainty that Konkani existed not only in its spoken form but as a language way back in 16-17th century and the script used was in devnagri only.

While going through the pages of "hortus", we experience a varied and well developed facade of Konkani language in 17th century. The resource papers presented by Dr. Hareendra Sarma and Prof. Bhushan Bhave are well studied and well documented works of research.

I take this opportunity to stress the need for further research on this subject.

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Contribution of Konkani to the Book Titled “Hortus Indicus Malabaricus”

- Prof. Bhushan Bhave

There have been different opinions among the learned people about the period of publication of “Hortus Indicus Malabaricus.” Regarding names and dates referred to in Hortus Indicus Malabaricus, there are numerous mistakes in the book. Similarly, there are different opinions about the dates of publication. In some cases, the year of first publication is noted as 1673 (AD), whereas elsewhere, it is noted as 1678 (AD). As in the case of the first chapter, there are varied opinions on the dates of publication of subsequent chapters, but the last chapter being 12th was published in 1703 and there is unanimous opinion among the learned people over this. In a way, the name of this book is scripted “Hortus” after the 4th chapter.

Today, all of us agree that this book was printed in 1678 AD (first chapter) and as such, 2011 AD completes a term of 300 years of Konkani undertaking (PramanPatra). This certificate is written in ‘Nagari’ script, which ushers completion of 333 years, 336 years have been completed for the writings in Konkani.

In the first line of Preface of the first chapter written in Konkani undertaking reads as follows :

As stated earlier, though the year 1587 or 1597 was not clear to the author according to Saka calendar, the date 1597 AD stands proved.

सुलिप्री वाणिवाहनत्राक १५८७ राक्षससवत्सर वैत्रवृद्ध १० को
जीराजपाटणी वैसिके रंगचट्ट त वाविनायक पंडित आप्रभृते गवैद्य
तामिको बियाकु मंदार आं डि कि फांटे त्या वा निरोपान ह्या मनबादेव
उ आ विले ओषधमात्र हसवा लिगादुरवंत ओळखते न्यामनुष्याक मु
सायोदेस्तु ते ते प्रांतांतु पेहू न तिति विमवद आणून त्या त्या फांटां वैफर
फूल पातवीत समस्त त्या त्या तुतु काला वरि सपादून तिति विविदिनी त्या उप
रंत आमि आमगे न्या वैद्य प्रैषा वा नि छैटा प्रमाणी त्या त्या ओषधचे गुण
वा अनु प्रशान जो जोगुण आमका कळे लो तो वा त्या आखदांची नावे पळेउतु
आजि बानि वर्ष सकां नि माजे आमि लागि रावून हा लिबु सपादून दिला तेल
टिक अ विसा गुं वा कनज अ विसा गुं आमि आमची तिसाणी कर्तु दिली
ते सत्य का गुं मानवे जा उदका गुं नागर बापा नद वर वून रिती श्री

१५८७

विनायक पंडित

आप वीरप

The details are as follows:

1. Saka	1587	Vishwavasv Samvat	= 1665 AD
2. Saka	1596	Anand Samvat	= 1674 AD
3. Saka	1597	Rakshasa Samvat	= 1675 AD
4. Saka	1599	Pingala Samvat	= 1677 AD
5. Saka	1600	Kalayukta Samvat	= 1675 AD

This document was written on 19th April 1675 (i.e., 10th day of Chaitra of Hindu Calendar). There is a reference to Rakshasa Samvat in the “Konkani undertaking.” This gives to understand that the letter of undertaking was written in the year Saka 1597 or 1675 AD.

It can be surmised that the use of *Nagari* script for Konkani write up completes as on date 2011 AD, a term of 336 years (three hundred thirty six years) (Saka year +75 years = AD). Three Konkani *doctors (vaidyas)* wrote and authenticated this document in 1675 AD, and three years later, i.e., in 1678 AD, this book (first chapter) was printed.

Therefore, if the period of writings in Konkani can be assumed as 336 years, the printing of Konkani book can also be considered as 333 years.

The First Book in Konkani

“The undertaking” as stated earlier proves the existence of written Konkani. Away at Malabar (Kerala) at a distance of over 1600 km from Goa, the foundation seat, Konkani was a literary language in the 7th century, and it was written in *Nagari* script. Its identity in *Nagari* had public approval as well as recognition. Earlier to that, what was the condition of Konkani? Was it a spoken language or was it in existence? To examine this, we may have to turn the pages of history.

1. Dr. S. B. Kulkarni has proved with evidence the existence of granite stone carving in Konkani script “Shree Chamunda Raje Karavile” at DoddaBetta hillock at Hasan in Karnataka State, (Konkani Bhasha – “Prakruti Va Parampara” Dr. S. B. Kulkarni, Goa Konkani Akademi). This means that Konkani was a spoken language in South Karnataka in 10th and 11th Century and had the official recognition. (Stone writings were mostly in spoken language, which also stands approved, if we accept this theory).
2. In the 12th – 13th Century, Konkani in the spoken form could be proved by domestic vocabulary.
3. The 14th – 15th Century could be the unknown period of poetic language, as assessed by many eminent persons of literature/knowledge. To supplement this statement, they put forward domestic sayings, idioms, poems, and poetry in metre.

4. Subsequently in the early part of the 16th Century, we come across the literary works of Goans, namely Krishnadas Sharma alias Shamraj, Vishnudas Nama, and Gyandeva, etc.

5. During the same period (1512 – 1515 AD), in a book titled “Suma Oriental,” written by Tome Pires has referred to Goa. In his English version of the book, he has stated that Konkani was a dialect/spoken language in the following form:

“Now, our road takes us to the magnificent Kingdom of Goa – the key to the first and second India. On the sea coast, it is separated from the Deccan by Kharepatan, the chief river in India – and inland, it is bounded by the Kingdom of Deccan and Kingdom of Narsinga, but is a separate language.”

(The Suma Oriental of Tome Pires, Vol.-1, edited by Armando Cortesao, Asian Educational Services, 1990).

6. Earlier to this, an Arab traveler, Alberuni (Al-Beruni) (970 – 1031 AD) and an Italian traveler, Marco Polo (1290 AD) have referred to Konkani as an independent language as contested by a few historians for which there is no concrete evidence available to the author.

7. Similarly, the learned John Ladue (1725-1811) during his tour of Kerala had recorded the finding of epics in Konkani like Bhagwat Purana, Linga Purana, and Thud Purana, etc., but so far, no such works are available until now.

Appearance and Features :

Konkani doctors (*vaidyas*)’ contribution to ‘Hortus’ can be in three forms;

- i) The three doctors (*vaidyas*) provided a letter of undertaking or certificate to the first part of the book.
- ii) In the first 800 pages of the book, they identified about 750 herbs and plants with sketches and wrote their respective names. This means that they have identified Konkani names of the herbs and plants to be included in the book after conducting scientific study.
- iii) Reference to the letter of recommendation and inclusion of findings and arguments by the author in the book.

A 336-year-old Letter of Undertaking / Recommendation in Konkani

‘Hortus’ book has the combination of three certificates of recommendation written in Malayalam, Konkani, and Arabic languages. Out of these, the certificate in Konkani as stated earlier was written in 1675 AD. The text of the original statement is given in exhibit 1. Reproduction of the certificate

made in the book is as per the exhibit 2. Konkani has been referred to as the language of Brahmin as observed in the certificate of the sketches done subsequently, where Konkani has been named as Lingua Bramanum or Brachmanum or the language of Brahmins. Similarly, Konkani people have been addressed as Brahmins. It is similar to that of Portuguese baptized Konkani in Goa as the language of 'Bamans.' This can be proved from the following facts :

1. This exercise, i.e., collection of Ayurvedic medicines and tabulating the information and facts was done at the instance of commodore EndricHande.
2. Collection of medicinal plants was done thorough a knowledgeable person from Malabar by paying him honorarium.
3. All the three Konkani doctors (vaidyas) resided in Kochi, the capital city as residents.
4. Later, all the medicines were divided into seasonwise and sketches of plants were drawn.
5. Later, they wrote the details of medicinal plants and medicines in three categories.
 - i. Text on Ayurveda or books available with them.
 - ii. Their personal experience with the effects of the medicinal plants and based on that and
 - iii. After observing the names of medicines.

This amounts to believe that the Konkani Pundits have contributed to authoring the medicinal texts. (12 chapters of the book have 1200 folios of which 800 folios cover sketches and remaining 400 folios consist information and research and explanatory notes.

6. The medical books referred to by them are mentioned as their own, which means;
 - i. The book must be written in Sanskrit.
 - ii. The book might have been written in Konkani. (This possibly cannot be denied). Ayurveda was in practice in Goa from ancient period which is evidenced till the rule of Portuguese.
7. 'Aji dani varsha Sakali Sanje' which means 'Ayaj Don Varsa Sakali Sanje' can be inferred that all the three doctors (vaidyas) were involved in the writing process of the book.
8. They had undertaken the following tasks to ensure that true information

was given to the people.

- i. They have attested the certificate of undertaking by signing the document.
- ii. The certificate is issued in Nagari script (or Nagari dialect or modi script). This confirms that people of those times had faith in Nagari which was already in vogue over a long period.

Introduction of medicinal plants (About 750)

The three Konkani Pundits have not only given the certificate of undertaking and introduction to the book 'Hortus' but also sketches of medicinal plants. This task was entrusted to Fr. Matheu. Similarly, the writing (after identifying their Ayurvedic quality) which draws attention toward their contribution to the book, they have identified about 750 medicinal plants and after ensuring their identity, they have recorded their findings which is itself a great contribution to the exercise of the identified medicinal plants. A few have been noted below:

Madd (*Maad*), Birmado (Bhillamad), Keli (Kela), Dadulpapay (DodulPopaya), Parijataku (Parijataka), Cheech (Chinch), Rubdu (Roomad), Pipalu (Pimpal), Vaddu (Vad), Kapus (Kapoos/Kapshin), TambidoMandaroo (TambdoMandar), DaraMandar (DhavoMandar), Karo, Avali (Avli), Huro, Kudo, Abado (Ambado), Makadphal, Bedusi (Bhedshi), Takhi (Tikhi), Bodki (Bondki/Banak), BodakKavaso (Banakkavaso), Kalajire (Kaljire), Taikil (Taykilo), Dutiro (Dhutro), Ruwi (Rui), Erandu (Erاند), Kajurkali (Khajurkali/Khajkuli), Nivuli (Nivli/Nivalkani), Panasu (Panas), Patpanas, Karmala, Naga Champho, Ambo, Sadaphali (Satphal), Ranbibo, Ghoting, Ranlimbo, Naring, Ranbori, Sailo (Saylo), Rithi (Rito), Phatherfeni, Karadal (Kardal), Babuli (Babool/Babhul), Uro (Huro), Kardi (Karandi), Dudwali (Dudiwal), Lajiri (Laj), KaloAdulso, Tilo (Tili), Kailadole (KavlyaDollo), Aboli, Abti (Amti), Shevti (Shevanti), Udiri (Hundri – EkpaniHunderi), Haldi (Halad), Ale (Alle), Toro (Tere), KhajroSuran, Salik, Kamal, Vekhad (Vekhand), Bedarli (Bendurli), Tan, Durva, Durbo (Dharb), Nachno, etc.

Quotations from Certificate of Undertaking and comments thereon

We can witness the prolonged hereditary characteristics of Ayurveda in Konkani society as evidenced by the certificate of undertaking. As stated in the certificate, fruits, flowers, leaves of different trees which means medicinal trees and creepers, plants/herbs, and roots of respective trees. Roots have different connotations – 'Aami amgelea vaidyagranthachya nighanthapramani

Nighantu is a term used in collection of data of Ayurvedic medicinal properties and similar books were written (in Sanskrit hymns and on the strength of taste) were available during that period. This also indicates that the *doctors (vaidyas)* had domination over Sanskrit language. An incident involving the

visit of Dutch Governor (under whose leadership the great book was written), to the residence of Ranga Bhat and other Konkani is noteworthy. During the said period, Goa witnessed the exodus of Gowd Saraswat Brahmin families as a result of religious persecution and inquisition, and they also carried away with them the hierarchal order of Ayurveda and preserved with them (use of Portuguese terms as *livru* and *commodore* signify their Goan background).

The people of Kerala had high regard for their rich experience. Despite aggressive talks, discussions, and debates over the homemade medicines, the *doctors (vaidyas)* effectively dealt with the opponents' views with respect and understanding. Their knowledge of medicinal plants and medicines were composed in the form of verses and poetic language. The entire process was dependent on memory, recitation, idioms, and quotations, etc., and were being taught to the children even when they were playing or fighting.

Brahmin *doctors (vaidyas)* could provide all information about the plants once the name of, and this was stressed upon by the Goan *doctors (vaidyas)* on and often (chapter 12, part 3, *vanaspatimogalvachankar*, unserialised folio 8). the plant was made known to them. They recorded data of certain medicinal plants on the basis of taste, species, instinct qualities, nature, division, foundation, time/period, medical quality, usage and other issues, etc., meticulously plantwise. This Ayurvedic system was in vogue for over a period of 4000 years

Medical terms in Konkani used in the Hortus – script and lettering style

The script used in the Konkani certificate is Nagari or present day Devanagari, but there is considerable difference in both the scripts. There was no definite structure of letters in practice, and there was no similarity or common appearance among them. Because of difficulties in making the blocks, there was possibility of changes in style, size, and appearance. Since ancient times, Balabodh Nagar, Modi, Kandevis(?), Brahmi, Halegannad (Old Kanarese), followed by Devanagari, and later during the rule of Portuguese, Romi, Kannada, and Malayalam scripts have been used for writing Konkani by the expatriates, as also due to religious compulsions, Farsi script has also been used. In fact, the last reason mainly was different from that of present time and were more difficult to read and understand. For example, look at the movement of letter “*jh*” (fourth and fifth turn). In the same manner, “*ch*” looks like the beak of a crow (eg., *kochi* = 2 turns), “*bh*” letter does not have the above knot. Original letter disappears while writing “*j*” (Aapu Bhat = turn 2). In many cases, there is a practice to add vowel to “*j*” to the letter (viz., *bahul* = turn 1 or *rutu* = turn 6. There is no difference between “*dh*” and “*gh*” (eg., *aushadh* has been written *aushagh* = turn 4). Crossline in the letter “*ba*” is not given (eg., *beej* = 6 turns), but it is given elsewhere (eg., *baisike* = turn 2;

Malabar = turn 3; *barapaana* and *baravunu* = bottom line turn. Letter “na” looks like “ta” due to the absence of a knot (eg., *nisani* = 10 turn which looks like *tisani*).

In the certificate of undertaking, no space has been left between the two words. To derive the meaning, we have to separate them. The peculiarity of *Devanagari* is that letters are not written below each line separately, but they are jumbled below one line itself.

Two numbers namely, 1597 and 10 appear in the letter of undertaking. Their movement especially numbers 1, 5, 8, is different. Number 9 looks like number 8.

There are no signs of full stop or comma after sentences or words anywhere in the write up in the letter of undertaking.

Errors and shortcomings in the document (Letter of Undertaking)

While writing the text of undertaking or while making the printing blocks, there are some errors which should be essentially borne in mind keeping in view the language of the present times.

1. The spoken and spelt words are not consistent with those written in the document, eg., *sapaduna* (*sampadun*), *savatsar* (*samvatsar*), etc.
2. Wrong letters have been used, eg., *deshavu* (*deshatu*).
3. Errors in use of strokes (*kano*, *aadi*, and *matra*), eg., *haa* (*ho*), *te* (*tem*), *ha* (*hem*).
4. Confusion between the words, eg., *aushagh* (*aushadh*) (confusion between *gh* and *dh*). *Aushadha* word could be in the spoken form but *aushadha* was also on the lips of the Konkani speaking people along with *aakhada* and *vokhada* which should be kept in mind. (Please see table). The difficult words are as follows:

Words	Assumed meaning
Deshavu	Deshatu/Deshant
Daani	Doni/don
Sakachi	Sakali

Spoken forms in the letter of undertaking

The Konkani used in the letter of undertaking is definitely ancient script (modi in Kerala) or a dialect, but some typical words carried from Goa had made definite impact. Some typical, specific original words are as follows;

1. *Teg* (*Tiga*).
2. *Vokhad* (*Vakhad*)

3. *Kalavari* (*Kalavari* = *kalapramana*)
4. *Amgelya*
5. *Saje* (*Sanje*)
6. *Laagi* (*Laagin*)
7. *Latik* (*Latik=asatya/phat*)
8. *Naza* (*nhaza*)
9. *Nisani* (*Nishani*)
10. *Rajapatni*.
11. *Barovana*.

As stated above, we can get the present form of dialect based words instantly. It is already stated that all the 3 Goan doctors (*vaidyas*) had good knowledge of Sanskrit who wrote the certificate. In the ten line certificate, there are 12 Sanskrit words as follows; Sanskrit words

Tatha, Swasti, vaidya, vruksh, khanda, manushyak, beej, samasta, grantha, nighanta (nighantu), guna, satya, shree.

Konkani Grammar Reference in the Certificate

1. Use of Pronouns :

In the certificate the following pronouns appeared. *Tani, tyacha, tete, titi, tyatya, tya, ami, amgelya, jojo, to, tya, haa (ho), te, ami, amchi, te (tem), ha (hem).*

2. Nature of plural words, in the Konkani certificate, there is a reference of "*tyaaakhadanchinanva*." *Naanv* (name) is in the plural form of word *Naav*. Today, we use the word *Naanva* against the former word. Similarly, the word "*varsh*" in the certificate is in the plural form of word "*varsa*" which is used today as "*varsan*."
3. Consonants in the seventh place. In the sentence, *Kochi rajapatanibaisike*" mentioned in the certificate, the word *patani*, the consonant is shown behind the cap of letter 'ni' which means in *patani*. For example, *tu khain gello? Hanv Nageshi gello* (in the same manner, *Mangueshi, Kavalyan*, etc.,)
4. Dominance of consonants in Konkani is a specialty. In all 125 words of Konkani certificate there are 36 consonants used in about 32 words. Similarly, about 10 words remain to be given of which 9 consonants are marked by a dot. This dominance in Konkani was existing in 17th as it is existing today which is a testimony and to confirm this, one word of certificate *gaanvantun* is sufficient.

Observation and conclusions

Looking at the certificate and its contents in Konkani, there is a need for research of Konkani of those periods in a big way. Spoken Konkani was existing during 9-10 century onwards, but when the lineal descent of the script started is not known and has to be investigated. How this lineage started in Goa went to Karnataka and Kerala has also to be investigated. For this, it is necessary to study the habitation of Konkani society. We may have to revisit the history of Goa's inquisition in order to identify and ascertain the contribution of Konkani people we have to undertake translation work of original book in Latin, with 12 chapters, more aggressively.

Search of Goa's Hierarchical order of Ayurvedic doctors and medicines

Along with this, it will be necessary to study the heirarchial order of Ayurvedic doctors starting from Goa down to Kerala. If ever the family belonging to these three doctors still exist, it will be necessary to study their family lineage and search for the related documents (written or in spoken form).

Discovering the familiar literature of expatriates

Expatriates tend to preserve their original language and original language and culture discreetly because it is a tool to link the culture with the one existing in the alien land. Therefore, it is necessary to quickly discover the popular literature and language from the society spread over from Karwar to Kochi. There can be Godde Ramayan, Shravan Geet, and other folk literature which people can recite with ease. Composed and recited poetry, based on the glossary, can also be in existence. If available, the base of the medical history from the days of Dada Vaidya, can be traced for scientific angles.

Scripts of Konkani in the earlier periods

As stated earlier, since ancient times, Konkani was written in 10 to 12 scripts. According to Dr. Kulkarni, the stone carving at Shravan Belagola was written in Nandi Nagari script (See Konkani Bhasha : Prakruti va Parampara, Goa Konkani Akademi, 2007). Similarly, in 16th Century, Kaanadevi (Kandhavi?) script was used in Goa as per expert's opinion (see Dr. Olivinho Gomes, Jose Pereira), therefore, there is a need to conduct research on the script and related literature.

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Linguistic Analysis of the Konkani Language in the Book : Hortus Indicus Malabaricus

- Dr. P. R. Hareendra Sarma

'Hortus Indicus Malabaricus' is a book on Botany. The editors of this book Shri Rang Bhatt, Shri Vinayak Pandit and Shri Appu Bhatt were Konkani speaking Gaud Saraswat Brahmins of Vedic-Vaidya tradition from Kochin-Kerela. This book was published in 1678 A.D. It is natural for any language to be impacted by the place and time of usage and the culture of the people in relation with the language. This is true with respect to the Konkani Language in the book 'Hortus Indicus Malabaricus'. If sounds, terms, words, meanings and sentences are seen, the natural impact on the Konkani in it is clearly visible.

The certificate given by the three Vaidyas – Rang Bhatt, Vinayak Pandit and Apu Bhatt – is in Konkani. It is as follows:

“स्वस्ति श्री शालिवाहन शक 1597 राक्षस संवत्सर चैत्र बहुळ 10 कीची राजपाटणी बैसिके रंग भट्ट तथा विनायक पंडित आपू भट्ट तेग वेद्य तानि कोचिचा कुमदोर आंड्रिकी फाड्रे त्याचा निरोपान ह्या मलबार देशांतु आशिले ओषध मात्र वृक्ष वालिझाड खंद ओलखतेल्या मनुष्याक मुसारो देवुनु ते ते गांवातु पेट्टवून तिं तिं वोखद आणवून त्या त्या झाडाचें फल फूल मान बीज समस्त त्या त्या रुतू कालावरि संपादून तिं तीं चितारिली त्या उपरांत आमि आमगेल्या वैद्य ग्रंथाचा निघंटा प्रमाणि त्या त्या ओषधाचे गुण वा अनुभवान जो जो गुण आमका कळेलो तो वा त्या आखदांची नांव पलेउनु आजि दानि वर्ष सकाळिं साजे आमिं लागि राबून हा लिवु संपादून दिला तें लटिक अशिं म्हणुंकाक वज अशि म्हणु आमि आमची निसाणि कर्णु दिली ते सत्य म्हणु मानुचें जाइद म्हणु नागर बरपान हे बरवून दिलां श्री.”

रंगभट्ट

विनायक पंडित

आपूचि ओप

It is natural to have similar and similar-sounding words as Sanskrit in Konkani in abundance, since it is originally evolved from Sanskrit. Apart from these words, other indegenous and foreign terms too are seen to have naturally merged with Konkani and accepted in this book.

In the vedic-vaidya tradition, there is a custom of mentioning place and time at the beginning of any certificate of a good work. In accordance with a mention of time in Sanskrit terms - 'स्वस्ति श्री शालिवाहन शक 1597 राक्षस संवत्सर चैत्र बहुळ 10'. From these 'स्वस्ति' and 'श्री' are words pointing to 'Good' and 'prosperity' respectively. After that, 'कोची राजपाटणी बैसिके' is the description of place. It means 'while living in Kochin Capital'. Out of these राजपाटणी and बैसिके have more resemblances with

Goan Konkani rather than Keralite Konkani. It is not possible to make it clear without adding 'आंतु' as a suffix to the term राजपाटण. Konkani groups moved from Goa to Kerala in 1560 AD and this book was written in 1678 AD, is claimed by the experts. Such experiments may have been normal in the Konkani from Kerala at that time.

It is very clearly told who has edited this book, in this certificate - "रंग भट्ट तथा विनायक पंडित आपू भट्ट तेग वैद्य तानि". Instead of 'आनि' from today's Konkani, here we find direct Sanskrit word 'तथा'. From the part "कोचीचा कुमदोर आंड्रिकी फाड्रे त्याचा निरोपान", it is clear that this book has been edited by the Commander of Kochin Aadriki Fadre. Here the European term Commander has merged with the nature of Konkani to change into कुमदोर. The 'A' sound from other accents have been naturally accepted by turning them into 'O' sound by Konkani. An example could be given such as the turning of originally Sanskrit word दामोदर into 'दमोदर' in Konkani. In the journey of Konkani which began from Sanskrit, the language and 'Prakrit' seems to have a huge effect on Konkani. It can be clearly seen even today. The reason behind 'A' sound turning into 'O' sound is this effect. Instead of 'तंगेले' for 'their', 'त्याचा' has been used. In today's Keralite Konkani, 'चा'/'चो', 'चें', 'चे', 'चि', 'चिं' and such suffixes are not used as the correlative prepositions to proper nouns and pronouns. Instead 'लो', 'लें', 'ले', 'लि', 'लिं' and such suffixes are used. In Marathi, 'चा', 'चे', 'ची' (रामाचा, रामाचे, रामाची) such suffixes are used as preposition suffixes to proper nouns, common nouns as well as pronouns. Here, the usage of 'त्याचा' seems to have an effect of Marathi. For those migrated from a place close to Maharashtra, especially in that time period, it is but natural to have a Marathi impact on the language.

By 'निरोपान' they meant 'By Order' or 'With Permission', while some experts from Kerala have said this word is 'तिरोपान' and not 'निरोपान'. In Malayalam, they say 'तीरप्पिनाल' for 'by order'. If this word has merged with nature of Konkani and changed to 'तिरोपान', the meaning doesn't change.

The Konkani in the part "ह्या मलबार देशांतु आशिल्ले ओषध मात्र वृक्ष वालि झाड खंद ओळखतेल्या" is no much different from the Konkani used in Kerala today. 'देश', 'ओषध', 'वृक्ष', 'वालि' and all such words are mischanged words from Sanskrit. Though there has been a little variation in terms of sound in the words 'ओषध' and 'वालि'. The term 'खंद' comes from the Sanskrit word 'स्कंध'. 'झाड' is an indigenous term. 'ओळख' is a word that Konkani has adopted from Marathi.

"मुसारो देवु ते ते गांवातु पेट्टवून तिं तिं वोखद आणवून त्या त्या झाडाचें फल फूल पान बीज समस्त त्या त्या रुतु कालावारि संपादून". In this part, 'मुसारो' means the honorarium paid to the

one who worked for research. This term has been derived into Konkani from Arabic-Persian languages. Muslim kings have ruled the Konkan area. Thus it is natural for such terms to crawl into Konkani. Rest all are the original, changed terms that came into Konkani from indigenous sources. The change from 'ऋ' to 'रु' is possible to have happened for convenience.

“तिं तिं वोखद आणवुन त्या त्या झाडाचें फल फूल पान बीज समस्त त्या त्या रुतु कालावरि संपादून तिं तीं चितारिली त्या उपरांत आमि आमगेल्या वैद्य ग्रंथाचा निघंटा प्रमाणिं त्या त्या ओषधाचे गुण वा अनुभवान जो जो गुण आमका कळेलो तो वा त्या आखदांची नांव पलेउनु” - in this part too, only direct or changed terms are found. The speciality of both types found in this part is worth mentioning. Here they say 'Our'. Earlier we saw the correlative prepositional suffix for common nouns being used 'चा'. Thus here they have said आमगेल्या instead of 'आमचा' to mean 'Our'. The 'ल्या' correlative prepositional suffix from here, in today's Keralite Konkani is similar to 'ले' correlative prepositional suffix. It probably has arisen from 'लग्न' noun from Sanskrit. So, in this single-sentenced certificate, different ways of writing the same word, according to pronunciations can be seen. In the same way, direct and changed forms of the same original word can be found. Here 'औषध', a direct derivation of a Sanskrit noun, changed to 'ओषध' due to a slight variation in pronunciation. Later, the same noun in its changed form 'आखद' is found. In the same sentence, further in a part changed form of the same noun is found as 'वोखद'. In this way, the same noun is found in its three different form, one directly adopted and two changed - ओषध, आखद and वोखद. Today in Kerala, this noun is pronounced in all these three ways.

“आजि दानि वर्ष सकाळिं सांजे आमि लागि राबून हा लिब्रु संपादन दिला तें लटिक अशि म्हणुंचाक नज अशि म्हणु आमि आमची निसाणि कर्णु दिली ते सत्य म्हणु मानुचें जाइद म्हणु नागर बरपान हें बरवून दिलां श्री” - In this part too, all the previously mentioned words of all four sources are found. Here, 'लिब्रु' is a European term that means book. 'निसाणि', a Persian term can be found used to say 'signature' like in the beginning, in the end too, 'श्री' has been used to signify prosperity.

In this certificate written on a bronze sheet, the writing in some places is unclear. For example 'दानि' which actually should be 'देनि'. 'AmoIX' has been found as 'आखद'. In both inferences here, the symbol specifying 'O' sound is not clear.

Centuries before the arguments about efficiency of the Nagari script for Konkani language arose, in 1678, the three Konkani experts who wrote this

certificate, didn't just write it in the Nagari script perfect for Konkani in sound perspective, but also mentioned they have written it in the Nagari script - “नागर बरपान बखनु दिलां.”

At the end of this certificate, all the three experts have signed in Nagari script too. If seen this, one realises the effect of the Malayalam in Kerala on the Konkani in Kerala from that time onwards. In the first signature ‘रंग भट्ट’ has been written. In the second sign, ‘विनायक पंडित’ has been written. In the third ‘आपुचि ओप’ is seen. In Malayalam signature is called ‘ओप्प’. While accepting words from other languages into Konkani, it is natural for changes to occur. Konkani, is habitual to lengthening consonent sounds other than vowel sounds. For example, the noun - हस्त from Sanskrit changes to ‘हात’ in Konkani. Similarly ‘ओप्प’ the Malayalam word is pronounced as ‘ओप’ in Konkani to compensatorily lengthen the ‘प्प’ double sound. In the same way this word is found in this certificate - “आपूचि ओप” Due to the ‘अँ’ sound of it, the word ‘ओप’ has been accepted in Konkani as a feminine term. Thus, as previously mentioned, the correlative propositional suffix from ‘आपूलि ओप’ has been changed and written as ‘चि’. The extravagance of nasal sounds from this is a speciality of Konkani language.

The names of medicines have been given in Konkani in this great book 'Hortus Indicus Malabaricus'. Whereas, the Dutch haven't used 'Konkani' as a name in that book. Instead, they have said 'Lingua Bramanum'. The three experts who edited this book were Konkani speaking Gaud Saraswat Brahmins. Thus in this special book published by them this language is called 'Lingua Bramanum' since the Dutch assumed that Konkani was the language of Brahmins. In this book they have given the names of medicine in Roman Konkani Script.

In this huge book of 1616 pages, distributed in 12 volumes, 742 medicines have been described. If analysed the given Konkani names of those, it is clear that most are changed derived words.

For eg.

Sanskrit		Konkani
आमलक (Amlak)	>	आवाळी (Avali)
आम्रातक (Amratak)	>	अम्बाडो (Ambado)
उदुंबर (Udumbar)	>	रुंबड (Rumbad)
कदली (Kadali)	>	केळि (Keli)
कर्पास (Karpas)	>	कपूसी (Kapusī)

कारास्कार (Karaskar)	>	कारो (Karo)
कुटज (Kutaj)	>	कूडो (Kudo)
चिंचा (Chincha)	>	चींच (Chich)
तिक्त (Tikt)	>	तिक्खी (Tikkhi)
नील (Nil)	>	नीळि (Nili)
पिप्पल (Pippal)	>	पिंपळु (Pimpalu)
बकुल (Bakul)	>	वव्वाळि (Vavvali)
मेथी (Methi)	>	मेत्ति (Metti)
वट (Vat)	>	ओडु (Odu)
वंशी (Vanshi)	>	वासि (Vasi)

These 'sound' changes in the derived words, are seen to have changed for the purpose of convenience in pronunciation,

To conclude, it is clear from linguistic analysis of Konkani language in Hortus Indicus Malabaricus', that the Konkani from this, is a Konkani loyal to Sanskrit. This speciality is natural since this book has been edited by three Brahmin experts who belonged to a Vedic-Vaidya tradition. Thus, due to the effect of place and time, changed and unchanged words derived from Sanskrit as well as Indigenous, foreign and Malayalam words too are found in this. The change in sound in the changed words, can be considered as effects of natural and easy travel of language from rigidity to simplicity. If seen from a point of view of correlative prepositional suffixes, the impact of Marathi on this Konkani can be seen. It's speciality is to find different forms of the same suffixes in the same sentence. Although long, just a single sentence makes the certificate and this as a speciality too. Changed and unchanged forms of the same noun occur in the same sentence. Apart from that, two forms of the same changed derivation too occur in the same sentence too, is a speciality. From the 'sound' and pronunciation point of view Nagari script compliments Konkani perfectly and thus, the three experts who wrote the certificate prove to have knowledge of not just medicine but scientific perspective of the specialities of pronunciations of the Konkani language which is their mother-tongue.

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Session : 6

Plenary (Interactive) Session

Chairperson : *Shri. Nagesh Karmali (Goa)*

Discussant : *Shri. Anand G. Kamath (Kerala)*

Discussant : *Shri. N. Muralidhara Pai (Kerala)*

Discussant : *Shri. P. N. Sivananda Shenoy (Kerala)*

Hortus : A Classic Compilation

- *Shri. Nagesh Karmali*
Chairperson

The seafaring European adventurers, traders and travelers ushered in an era of give and take and international trade between the continents. It was a beginning of era of mutual understanding and learning. Just as India benefited from Europeans, so also the later derived benefit from Indians. This give and take paid us rich dividend in the field of agriculture, horticulture, herbiculture and its trade. From Europe, we could get cashew-plant, pineapple, guavas etc. and in return Europeans took from us various kind of condiments. Indian condiments added taste, flavor and aroma to the European cuisine.

This experience led Europeans to be more inquisitive about Indians' knowledge of the plants and herbs. Before the advent of European medicine the Indian medical practitioners made use of the herbs in formulating various medicines to cure the patients here. Many a times these indigenous medicines proved to be more effective than the European medicines in providing relief to the ailing patients.

The ever inquisitive mind of Europeans must have led to exploring in the Indian system of medicine. Therefore, I am sure this must have resulted in compilation of classic work 'Hortus Indicus Malabaricus'. This was done in the later half of 17th Century by a Dutch Commander stationed in Cochi, who undertook compilation of 742 plants and herbs of Konkani region, involving the locals experts in the field. He compiled as much information of these plants and herbs and made it available in 12 volumes. In those days Latin was used to publish such scholarly work. It is of utmost significance that in this endeavor, the members of Konkani community migrated from Goa in 16th century contributed a lot. In these volumes the names of various plants, flowers, leaves, roots, herbs etc. appear in Latin, Malayalam, Arabic and also Konkani (in Devanagari Script) languages.

This entire work was a result of a genuine and original research. The accompanying testimonial which forms part of the work bears the attestation of three Konkani scholars by name Apo Bhat, Rango Bhat, and Vinayak Pandit. This testimonial is emphatically in Konkani and in Devanagari script. Hortus is a classic document on herbal medicines. At the same time it is undoubtedly a testimonial to the undeniable historic truth that the language Konkani lived contemporary life along with the living plants and herbs of the olden days.

I feel we must be proud that we are the inheritors of this great legacy.

Shri. Anand G. Kamath

The contributions of the Trio in the making of Hortus are worth noting and remembering. The book was prepared just after 100-150 years of Konkani migrating *en masse* to Cochin.

The contribution of Konkani to Garcia De Ortha's Book – *Coloqios dos simples edrogas he cousas medicinais da India* - proved that Konkani were experts in Ayurveda and this is the main reason why Van Rhee de selected Appu Bhat, Ranga Bhat and Vinayak Pandit while crafting Hortus. They proved the Trust reposed on them by Van Rhee de. Their contributions to the Hortus was really great. It is our duty to recognize their work and bring them the accolade they deserve. We also need to find out the family history and other achievements of these physicians as well.

Shri. N. Muralidhara Pai

Referring to the discussions during the different sessions I would supplement the following information.

The word Drakenstein in the name of Hendrik Adriaan Van Rhee de tot Drakenstein refers to the castle to which he belonged.

Hortus contained 791 pictures pertaining to 742 plants. The book contained 1524 pages of Botanical details and 92 pages for others, thus totaling 1616 pages in 12 Volumes.

Carl Linnaeus, who is considered as Father of Modern Botany, has recognized Hortus for its authenticity. The names of plants mentioned in Hortus were accepted and adopted by him while formulating the Binomial nomenclature in Botany.

The book contains 6 certificates. The 5th certificate is in Konkani, given by Appu Bhat, Ranga Bhat and Vinayak Pandit. The 6th one is given by Vinayak Pandit for himself and others in Portuguese.

I feel the Konkani certificate was never translated. But the 6th certificate given in Portuguese was translated to Latin and then to English. This translation was publicized as the translation of Konkani certificate.

Moreover, while reading the Konkani certificate we will realize that it is not a true translation at all. If the original certificate given by Vinayak Pandit, said to be in Portuguese is available we could have compared the translation.

Since it is not available, the 6th certificate appearing in Hortus in Latin, got translated independently by Sri. Xavier Cota from Goa. This translation

proves our contention that the so called translation of the Konkani certificate is wrong.

Shri. P. N. Sivananda Shenoy

The contributions of the Konkani Physicians were unique and as per the certificate given by them they have spent more than 2 Years to collect the specimens by deputing persons to different places by paying remuneration.

He also stated Konkani names were mentioned alongside the pictures appeared. More over under coconut tree while giving the details of the drink extracted was named only as "SURE" (pronounced as *Soora*) which is a Konkani word.

From this it is evident that the contribution of Konkani to the book is more compared to that of others. Unfortunately others are given importance than that of Appu Bhat, Ranga Bhat and Vinayak Pandit.

It is our duty to set right this and I request the seminar to pass a resolution on this and send it to the concerned authorities.

Even today we can see remnants of places like Odatha in Fort Kochi area where Hortus project was undertaken.

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Valedictory Session

Chief Guest : Shri. Ramadas Kamath. U. (Karnataka)

Guest of Honour : Shri. B.Vijayan, IAS (Goa)

Guest of Honour : Shri. P. Mathew Samuel, IAS (Goa)

Hortus : Milestone Achievement Further Research Required

- Shri. Ramdas Kamath. U.
Chief Guest

I was pleasantly surprised to note that a National Seminar is being held to highlight contribution of Konkani in the making of the botanical encyclopedia *Hortus Indicus Malabaricus* in the 17th century. Surprised because our people often are not usually inclined to properly document history, maintain documents of history, and even ignore the precious values from the past. But for the initiative of the then Dutch Governor of Cochin, Henrik Van Rheede, such a great project could not have happened.

It is a fact that Konkani physicians participated in the botanical project like *Hortus Indicus Malabaricus*. The Certificate given by Appu Bhat, Ranga Bhat and Vinayaka Pandit stands proof to the efforts put in by these Vaidyas. Not only that, their contribution is also evidenced from the fact that the plant names are given in Konkani, other than in Dutch, Malayalam and Arabic.

However we need to explore further on the subject. More biographical details of the three physicians need to be probed from the places where they dwelled. Definitely they were of Goan origin, and that is why one of them, Vinayaka Pandit, could translate from Konkani to Portuguese, as mentioned in the book. While the area from Goa to Kanyakumari in those days used to be called as Malabar. No wonder that the Dutch Commander chose to involve the three Konkani physicians in his project. Nominee of the Cochin King, Itty Achuthan, was also an active participant in the same project. A Christian priest, Fr. Matheus, too supported the botanical project by giving away the illustrations and notes on the flora to Van Rheede.

We need to inculcate an awareness among our people to preserve historical evidences, whether they are artifacts or palm leaves, so that the good values that prevailed in the past unravels from them. We usually say past is past, let us bury the past. But all things of the past cannot be buried. Further study of *Hortus Malabaricus*, if undertaken by going through the original texts in Latin afresh, can perhaps bring to light some new facts not only about the Konkani physicians, but also about the task undertaken by the Indian team itself.

The first block printing in Konkani language happened in *Hortus Malabaricus*. That too in Devanagari script. This fact itself throws light to the status of the language in that period. That makes the book a milestone in our history. Our forefathers could properly read and write also in Konkani, not just speak in it. This is a lesson we need to derive. Of course, we all speak Konkani, but

often we fail in reading and writing. Perhaps the modern onslaughts of other languages and lifestyles have affected this. As for me, yes, I do speak Konkani at home. My family also can speak Konkani. However we find it difficult to communicate in writing using Konkani. That is because we were not fortunate enough to get educated in our mother tongue like our brethren in Goa.

Nevertheless, we need to continue the efforts to uphold the contributions of the great physicians to *Hortus Malabaricus*. It is a challenge, no doubt.

I hope this Seminar will create a pride in our history, an awareness on the contributions of the Konkani physicians, and will open up possibilities for further research in the plant species, biodiversity and the like. Bringing out the great book into Konkani will be another milestone achievement. Hope the authorities in Goa University will undertake the Hortus translation project with the true spirit. My best wishes to you all.

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DESCRIPTIO REGNI MALABAR.



A Copper engraved map of Malabar (1598) – Maker : Bertius, Middelburg

**National Seminar
on
Contribution of Konkanis to Hortus Indicus Malabaricus**

RESOLUTIONS

This National Seminar on “Contribution of Konkanis to Hortus Indicus Malabaricus” appeals to :

1. *The Govt. of Goa that a suitable memorial may be constructed in Goa to perpetuate the memories of the three Ayurvedic Physicians Ranga Bhat, Vinayak Pandit and Appu Bhat, who are of Goan origin, who have made all Konkanis proud, and whose contribution to Konkani language through “Hortus Indicus Malabaricus” is unique and shining even today.*
2. *The Govt. of Goa to exhibit a replica of the certificate, appearing in the Hortus Indicus Malabaricus (Volume 1) in Konkani, at the Krishnadas Shama State Central Library at Patto, Panaji, and also in the park Garcia de Orta in Panaji. This will create an awareness among the visiting tourists and general public about such a historic and significant document in Konkani language.*
3. *The Govt. of Goa to include the information of Hortus Indicus Malabaricus in the appropriate texts/lessons in the school Syllabus so that the children will know about their heritage.*
4. *The University of Goa to initiate a pioneering Project to have Hortus Indicus Malabaricus translated directly from Latin into Konkani, as presently only the names of plants are available in Konkani.*
5. *The University of Goa to form a task force comprising of experts and scholars in Latin as well as English languages in order to have Hortus Indicus Malabaricus translated into English language afresh,*

in order to remove the disparities/distortions found in the present version.

- 6. The Govt. of Kerala to recognize the contribution of Ranga Bhat, Vinayak Pandit and Appu Bhat in the making of Hortus Indicus Malabaricus while referring to or mentioning about the book in any official document.*
- 7. This National Seminar on "Contribution of Konkani to Hortus Indicus Malabaricus" appeals the Govt. of Kerala to consider funding or sponsoring production of an unbiased documentary film on the monumental work, with due credit to the Konkani Trio, besides others, in order to promote awareness on the environment as well as our heritage.*
- 8. The Corporation of Cochin to erect an appropriate memorial as a tribute to Itty Achutan, Ranga Bhat, Vinayak Pandit and Appu Bhat, at a suitable place within Kochi Corporation limits, considering that these physicians spent a precious number of years of their lives in Kochi to document the monumental work.*

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About Our Contributors



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Shri.Bhat (b.1953) passed out IAS during 1976. He worked as Director of Delhi Financial Corporation, New Delhi and as Chief Secretary for Andaman Nicobar Islands, at Port Blair. He is associated with Tata Institute of Fundamental Research, Mumbai. He was Secretary of Atomic Energy Commission and recently retired from Dept of Space & ISRO HQ. Sri.Bhat resides in Bangalore.

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Shri. Basti Vaman Shenoy

Shri. Shenoy (b.1933) is popularly known as 'Konkani Sardar' and heads the World Konkani Centre, Mangalore. He has several writings in Kannada and Konkani to his credit. A voracious reader and an able organizer, Sri. Shenoy has been spearheading the Konkani movement in Karnataka State. Sri.Shenoy resides in Thumbay, Bantwal.

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Shri. R. Bhaskar Shenoi

Shri. Shenoi (b.1963) is an engineer and management consultant. He worked for National Productivity Council, Mumbai and is having business interest at Ernakulam. A social activist, he is a founder trustee and President of Anugraha Charitable Trust. Sri.Shenoi resides in Ernakulam.

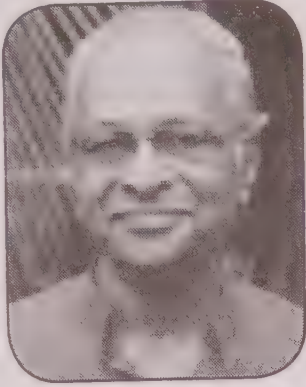
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Dr. N. S. Prabhu

(b. 1932) A renowned name on the English Language Teaching scene in India and overseas, Sri. Prabhu earned a Ph.D. in linguistic science from the University of Reading, UK in 1971. His doctoral thesis was on 'Konkani Syntax'. Mr. Prabhu hails from Kundapur. His work "Reader 8" in Gulmohar series is a prescribed text book for English (Paper II) in Goa Secondary Schools. Dr. Prabhu resides in Bangalore.

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Adv. Uday Bhembre

Shri. Bhembre (b. 1939) is a senior lawyer, a former MLA and former editor of 'Sunaparant' daily. He was actively associated with people's movements like 'Konkani Prajecho Avaz' and 'Bhasha Suraksha Manch'. He was President of Goa Konkani Akademi. Presently he is the President of 'Asmitai Pratishan'. He has contributed a lot to Konkani lyrics & poetry. He has to his credit books titled "Brahmastra", "Channyache Rati" & "Karnaparva". He resides in Margao.

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Prof. Ismail (b. 1943) retired as HOD History, Sir Syed College, Kannur University. He was also Faculty, Kunhali Marikkar Centre for West Asian Studies, University of Calicut. He is a member of Indian History Congress since 1976 and honoured as a Chairman, Board of Studies in History; Member, Faculty of Humanities; Member, Commission of Affiliation of Courses; Faculty for the School of Distance Education in Calicut University. He resides in Badagara.

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(b. 1969) Graduated in 1989, Sri.Prabhu took PhD in 1997 from CUSAT in Biotechnology. He has won several Awards including Young Scientist Award (2002) and many Fellowships. He is guiding research at PG Dept. of Zoology and Research in SD College, Alappuzha.

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Shri. Payyanur Ramesh Pai

Shri. Pai (b.1959) has worked in different banks in India and UAE for over 30 years in different capacities. He has written several books in Konkani and Malayalam. He serves as Trustee in Konkani Language & Cultural Foundation, Mangalore, and as Member on the Konkani Advisory Board, Sahitya Akademi, Mumbai. Sri. Pai is The Founder Chairman of Konkani Sahitya Akademi Kerala. He resides in Ernakulam.

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Shri. N. Balakrishna Mallya

Shri. Mallya (b.1974) has graduated in Commerce and has written several poems in Konkani. His Malayalam book 'Hortus Malabaricusum Konkarnikalude Pankum' was published in 2010 and Dr.Pratima Asher translated the same into English in 2012. Sri.Mallya enjoys photography and painting as well. His anthology of poems 'Jeeva Sankalp' was published in 2011. He resides in Cochin.

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Shri. Cartoonist Balachandran

Shri. Balachandran (b.1953), popularly known as 'Balu', was a Banker for over 26 years. He draws cartoons for over four decades, and has been the Chairman of Kerala Cartoon Academy during 2002-05. His cartoon columns regularly featured in Manorama weekly, Indian Express daily, Film Magazine, Manorajyam weekly, Kalakaumudi, Narmabhumi etc. He resides in Ernakulam.

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Shri. C. K. Viswanathan

Shri.Viswanathan (b.1960) is a painter, cartoonist and journalist. After graduation in literature from Kerala University in 1981, he joined Kalabhavan, Santhinikethan, Vishwabharathi University to study traditional design course, painting and graphics there. He is working in 'Kerala Kaumudi' Malayalam Daily, and resides in Thiruvalla.

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Shri. Dinesh R. Shenoy

Shri. Shenoy (b.1967) took up painting as a passion and has acquired more than 30 years of experience in oil painting. He has specialized in Monochromatic Sepia paintings. Heritage buildings draw his attention. He runs Chitrasala Art Gallery in Cochin and also heads the Centre for Heritage Monument Studies. He resides in Cochin.

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Dr. K. Madhusudhanan

Dr. Madhusudhanan (b.1970) earned his Ph.D in 2001 in Applied Botany, and is now an Associate Professor of Botany at St. Albert's College, Ernakulam. He has won several awards including Young Scientists' Award (1999), Best Research Poster Award (2002), Bharath Jyothi Award (2011) etc. Dr. Madhusudhanan resides in Kalady.

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Dr. Rajeev Shenoy

Dr. Rajeev Shenoy (b. 1954) studied Ayurveda from Venkataramana Ayurveda College, Madras. He took 'Ayurveda Siromani' in Sanskrit medium from Madras University in 1978. He also holds 'Vaidya Visarada Institutional Diploma' and did the 'Minor Surgery Course'. He runs the 'Shenoy Vaidyan Memorial Hospital' and resides in Cherthala.

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Dr. M. S. Kamath

Dr. Kamath (b. 1954) received the State Award in 1978 for securing 1st Class 1st Rank in the final BSAM Course in Karnataka. He is now the HOD of Ayurveda in Kasturba Medical College, Manipal. He has authored several articles and books on different subjects. He is a member of Panel of Experts in Ayurveda at the UPSC. Dr. Kamath resides in Manipal.

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Prof. Priyadarshini Sudhir Tadkodkar

B. A. (Sanskrit) and M. A. (Marathi & Hindi) Prof. Priyadarshini (b.1954) is Konkani, Marathi writer, Translator & Scholar. She has specialised in Research of Christian Konkani writing during Seventeenth Century. Presently Associate Professor & Head, Dept. of Postgraduate Instruction & Research in Konkani, Goa University, Goa since 2008. Recipient of Dr. T. M. A. Pai Foundation Award. Four books on Bibliography, Literary Terminology, Essays and Introduction to Konkani Language.

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Prof. Bhushan Bhawe

Prof. Bhawe (b. 1968) is Vice President of Goa Konkani Akademi, and is Associate Professor & Head, Dept. of Konkani at P. E. S College of Arts & Science, Ponda, Goa. He has written and translated several books in Marathi and Konkani. He is recipient of Dr. T. M. A. Pai Foundation Award for his book "Matoli" in 2007. He resides in Ponda.

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Dr. P. R. Hareendra Sarma

Dr. Sarma (b.1971) took his Ph.D in 'A Historical and comparative study of Hindi and Konkani nouns'. He has won several Awards including Kerala Hindi Sahitya Academy Award (2011). He is working as the Asst. Director (Official Languages) at Doordarsan Kendra, Trivandrum. Dr.Sarma resides in Trivandrum.

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Shri. Nagesh Karmali

Shri. Nagesh Karmali (b.1933) is a well known Konkani poet and good orator. He is a freedom fighter also. He has worked in mining industry and retired from All India Radio. He was President of All India Konkani Lekhak Sammelan. He won Sahitya Akademi Award (1992), Goa State Award (2007) and Vimala V Pai Vishwa Konkani Lifetime Achievement Award (2013). Sri. Karmali resides in Ribandar, Goa.



Late. P. N. Sivananda Shenoy

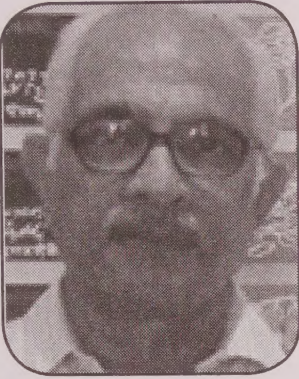
Late Sivananda Shenoy (b.1951) was a writer in Konkani and Malayalam. He retired from Cochin Port Trust, and his books include 'Kirkir' and 'Changpanachi Saant'. He served as Chairman of Kerala Konkani Academy, Advisory Board Member of Sahitya Akademi and Member Secretary of Konkani Sahitya Akademi Kerala. Shri. Shenoy passed away on 08.11.2013



Shri. Anand G. Kamath

Sri. Anand Kamath (b.1956) graduated in Chemistry in 1976. He is running a business Concern in energy sector. He is a Publisher and Trustee of P.G.Kamath Foundation, Ernakulam. Sri. Kamath resides in Ernakulam.

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Shri. N. Muralidhar Pai

Shri. N. M. Pai (b.1945) graduated from SD College, Alappuzha. After long service, he retired from Canara Bank as Divisional Manager in 2001. Presently he is serving as Treasurer of Anugraha Charitable Trust, Ernakulam. Sri. Pai resides in Ernakulam.

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Shri. Ramadas Kamath. U.

Shri. Kamath (b. 1961) is the President of the Vishwa Konkani Student Scholarship Fund, set up under the aegis of World Konkani Centre, Mangalore. Shri. Kamath plays a vital role in the management of Infosys' as its Senior Vice President. He resides in Bangalore.

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Dr. Wilfred Mesquita Inaugurating the National Seminar by Lighting the lamp.



The Audience - A view



Shri. Pundalik Naik addressing Valedictory session

स्वस्ति श्री गणेशाय नमः १५२७ राक्षससवत्सर चैत्र वदु १० को
 श्री राज पाटंगी बैसिकेरंग नट तथा विनायक पंडित आर नट ते गोवैद्य
 तानि को बिचा कुमदोर आं डि कि फां ड्रे त्या चानि रोपान ह्या मल बार देवा
 तु आविले ओषध मात्र दक्षवालि मातुर वंड ओळखते ल्या मनुष्याक मु
 सारो देस तु ते ते गांवां तु पेहू न तितिं वोरवद आण वून त्या त्या मातां चें फल
 फल पान वीज समसा त्या त्या तु तु काळा वरि सपाटून तितिं चित्तरि ली त्या उप
 रांत आमिं आमगे ल्या वैद्य ग्रंथा चानि घंटा प्रमाणीं त्यां त्या ओषधाचे गुण
 वाअतु मवा न जो जो गुण आमका कळे लो तो वा त्यां आखदांची नावं पळे तु तु
 आजि दानि वर्ध सकाचि साजे आमिं लागि रावू नु हा लिबु सपाटून दिला तें ल
 टिक अ विस्वाणुंचा कनज अ विस्वाणु आमि आमंची निसाणि कर्णु दिली
 ते सत्य दणु मानु चें जा इद दणु नागर बग्या न ह बगवू नु दिली श्रीः

१५२७

विनायक पंडित

आपु वी आप



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